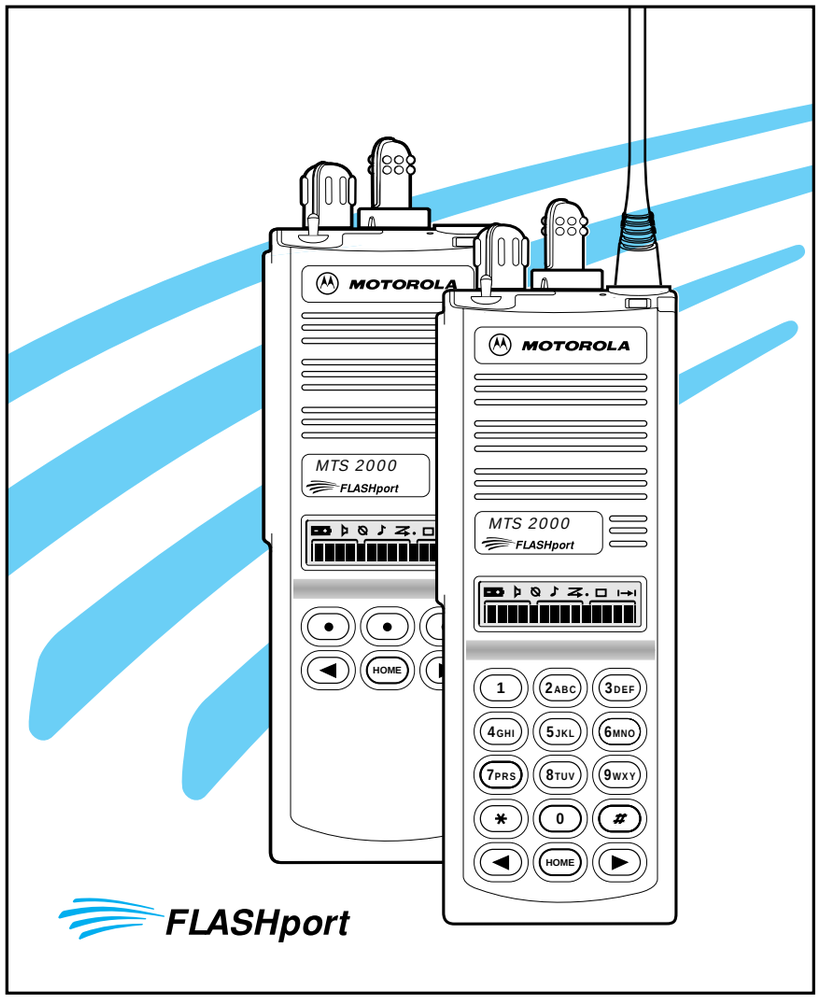
MTS 2000™ Models II and III Portable Radios

operating instructions



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MOTOROLA

1 MTS 2000™ Models II and III FLASHport™ Portable Radios

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Warnings, Cautions, and Notes

Throughout the text in this publication, you will notice the use of **WARNINGS**, **CAUTIONS**, and **Notes**. These notations are used to emphasize that safety hazards exist, and care must be taken or observed.

WARNING: An operational procedure, practice, or condition, etc., which may result in injury or death if not carefully observed.

CAUTION: An operational procedure, practice, or condition, etc., which may result in damage to the equipment if not carefully observed.

Note: An operational procedure, practice, or condition, etc., which is essential to emphasize.

Basic Radio Features

Welcome to the Motorola MTS 2000 FLASHport™ portable radio. MTS 2000 radios are sophisticated, state-of-the-art communication units, with 16- and 160-mode models available in VHF, UHF, 800 MHz, or 900 MHz frequency ranges. Pioneering the latest technology in radio electronics, Motorola MTS 2000 radios provide features that were once only available in more expensive radios. Intelligent and flexible software increases the radio's capability, decreases the radio's physical size, and permits many of the radio's features to be customized just for you.

FLASHport

Your MTS 2000 portable radio utilizes Motorola's revolutionary FLASHport technology. This allows your radio's capabilities to be flexible, because FLASHport makes it possible to add software that drives these capabilities both at the time of purchase and later on. Previously, changing a radio's features and capabilities meant significant modifications, or buying a new radio. But now, similar to how a computer can be loaded with different software, your radio's features and capabilities can be upgraded with software.

FLASHport allows you to add software to your radio as your needs change and as technology advances, making your radio investment go further.

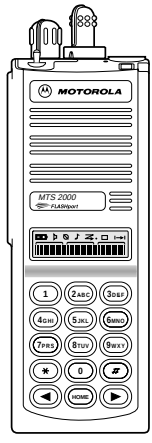
FLASHport is the future of radio communications, and it's yet another example of Motorola's commitment to your satisfaction.

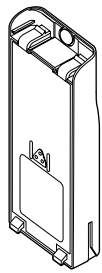
Inspection and Unpacking

Inspect the shipping carton for any signs of damage. Remove and check the contents to be sure that all ordered items have been shipped. Inspect all items thoroughly. If any items have been damaged during transit, report the damage to the shipping company immediately.

Radio Packing Box Contents

- Radio
- Antenna
- Nickel-Cadmium Battery
- Belt Clip
- Help Card
- Radio Information Sheet
- Operating Instructions





Antennas

Radio / Antenna Identification

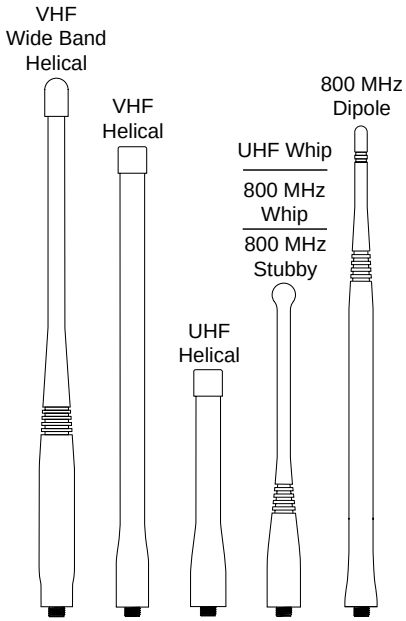
An information label is attached to the back of your radio (chassis), just under the battery contacts. A radio model number is identified on this label. A typical model number might be H01SDC9AA1AN. The fourth position of the model number (in this case “S”) identifies the operating frequency band of the radio. The Radio Operating-Frequency Chart lists all fourth-position alpha characters and corresponding frequency band.

Radio Operating-Frequency Chart

Fourth-position Character	Frequency Band	Fourth-position Character	Frequency Band	Fourth-position Character	Frequency Band
K	136-178 MHz	R S	403-470MHz 450-520MHz	U W	806-870MHz 896-941MHz

Antennas are frequency sensitive and are color coded according to the frequency range of the antenna. The color code indicator is the insulator in the center of the base of the antenna. The following illustrations and chart will help identify the antenna, antenna frequency range, and corresponding color code.

Refer to the **Radio Operating-Frequency Chart** and the **Antenna Identification Chart** to ensure that the match between your radio and antenna is correct.



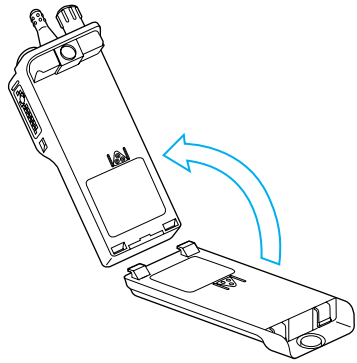
Antenna Identification Chart

Antenna Type	Approx. Length		Insulator Color Code	Frequency Range
	In.	MM		
VHF Wide Band Helical	8.1	203	RED	136-174 MHz
VHF Helical	7.8 7.3 6.9	195 183 172	YELLOW BLACK BLUE	136-151 MHz 151-162 MHz 162-174 MHz
UHF Helical	3.3 3.2 3.2	83 80 79	RED GREEN BLACK	403-435 MHz 435-470 MHz 470-512 MHz
UHF Wide Band Whip	5.2	130	GREY	403-512 MHz
800/900 MHz Stubby, Quarterwave	3.3	83	WHITE	806-941 MHz
800 MHz Dipole	8	200	RED	806-870 MHz
900 MHz Dipole	8	200	BLUE	896-941 MHz
800 MHz Whip	7	175	RED	806-870 MHz
900 MHz Whip	6.6	165	BLUE	896-941 MHz

Antenna Installation

Screw the threaded end of the antenna into the antenna receptacle located on top of the radio. Rotate the antenna clockwise until it fits firmly against the bushing.

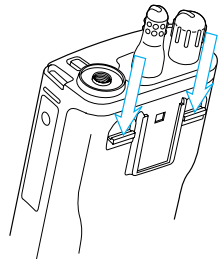
Battery Installation



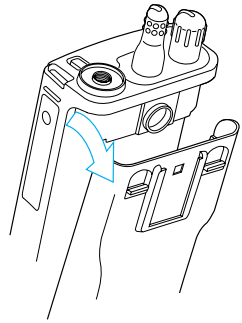
1. Turn off the radio and hold it with the back of the radio facing up.
2. Place the two notched tabs of the battery (located at the inside base of the battery) into the metal cutouts of the radio (located at the inside base of the radio).
3. Rotate the battery toward the radio and press the top of the battery into the radio until both battery release levers "click" into place.

   Note: The battery is shipped uncharged. Batteries must be charged before use. (See "Battery Information" section.)

Battery Removal

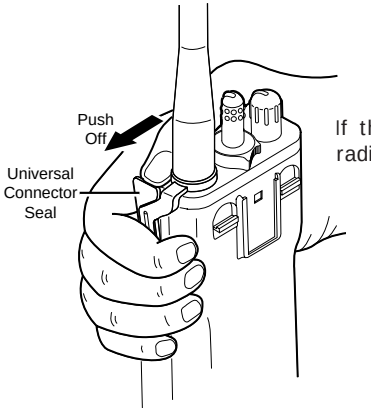


1. Turn off the radio and hold it so that the battery side of the radio is tilted down.
2. Press down on the two battery release levers.



3. With the release levers pulled down, the top of the battery will come apart from the radio.
4. Remove the battery completely away from the radio.

Universal Connector Seal Removal



WARNING:

- **When not in use, keep the side connector covered using the universal connector seal provided.**
- **Touching the top two contacts of the universal connector when transmitting could result in a radio frequency burn.**

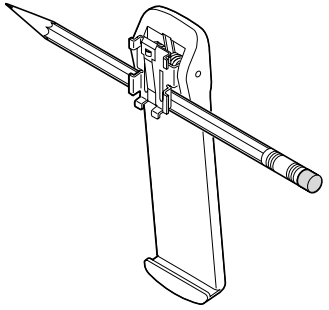
If the universal connector seal is attached to the radio:

1. Turn the radio off when removing the seal to prevent sending an emergency signal should the emergency button be inadvertently pressed.
2. Grasp the radio as illustrated, and push your thumb against the tabbed portion of the seal with enough force to unsnap the universal connector seal from the radio.

   Note: An arrow on the top surface of the seal indicates the direction of thumb pressure to unsnap the seal.
3. Rotate the seal around the antenna to move it away from the universal connector; slide the seal off of the antenna and completely away from the radio.

Belt Clip Installation and Removal

Note: To avoid damage to the radio's surface, installation and removal of the belt clip assembly should be done with the battery removed from the radio.

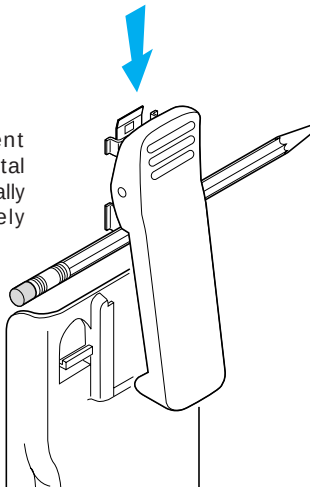


Installing the Belt Clip

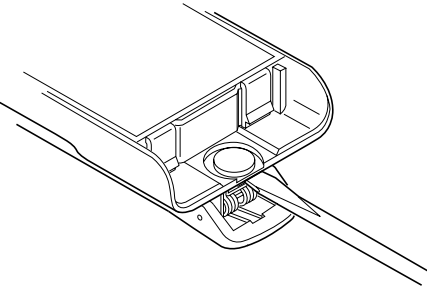
1. Insert a pencil or equivalent size instrument between the inside of the belt clip and the metal clip assembly so as to hold the metal clip partially sprung (metal clip should be approximately parallel with the plastic portion of the belt clip).
2. Align the metal tabs of the belt clip with the plastic slots of the battery housing.
3. Slide the belt clip onto the battery, pushing firmly until a click is heard.
4. Remove the pencil from the clip.

Removing the Belt Clip

1. Insert a pencil, or equivalent size instrument between the inside of the belt clip and the metal clip assembly so as to hold the metal clip partially sprung (metal clip should be approximately parallel with the plastic portion of the belt clip).



2. Push the flat blade of a #2 slotted screwdriver (or like instrument) between the battery housing and the belt clip release tab.
3. While performing step 2, slide the belt clip out and away from the battery, and remove the screwdriver.
4. Remove the pencil from the clip.



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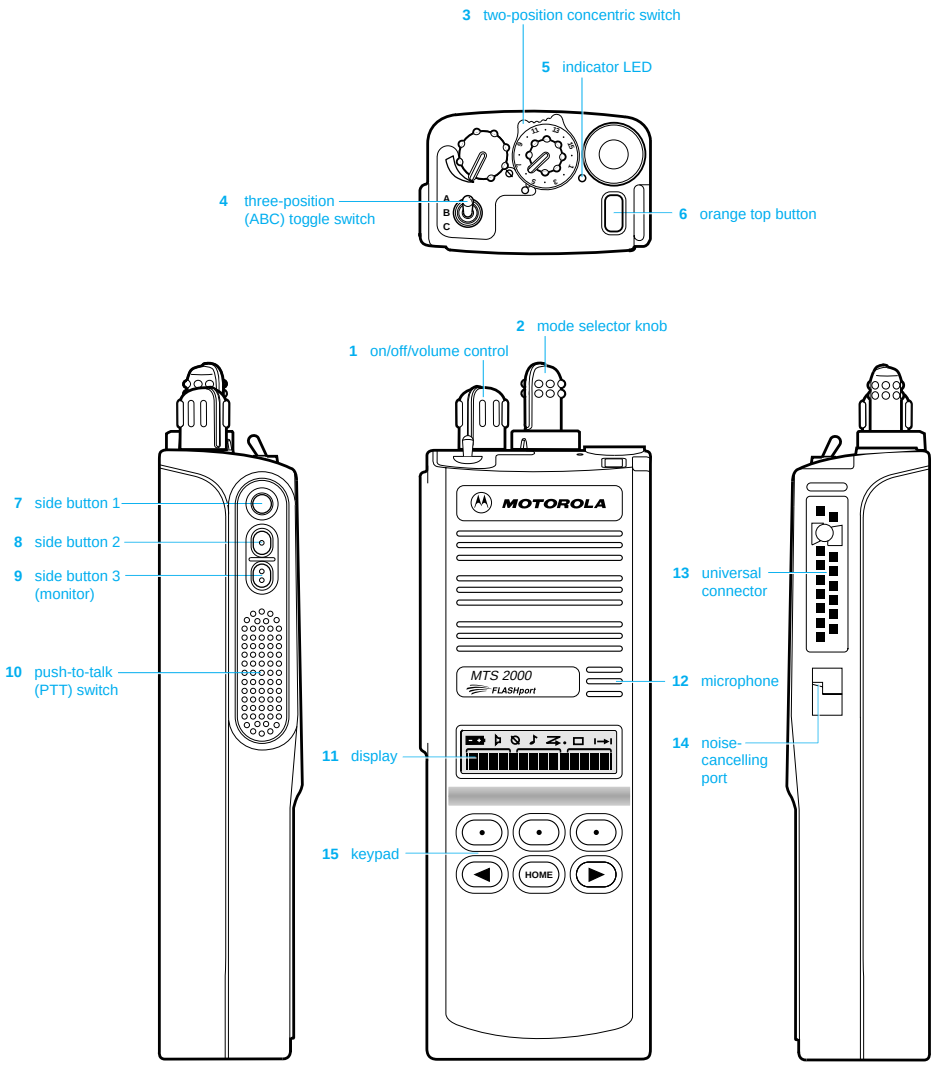


MTS 2000 II Radio

Controls, Switches, Indicators, and Connectors

1 **On / Off / Volume Control –** Turns the radio on and off and adjusts the volume level.

2 **Mode Selector Knob –** Selects the operating channel / mode (all radios) or the dynamic-regrouping position (trunked radios with dynamic regrouping only).

3 **Two-Position Concentric Switch –** Programable. In SECURENET-equipped radios, programmed at shipment to select clear (◯) or encrypted (SECURENET) (⃠) transmit operation. In non-SECURENET-equipped radios, programmed at shipment to turn scanning on or off.

4 **Three-Position (A B C) Toggle Switch –** Programmable. Trunked radios are programmed at shipment for zone selection (position A = zones 1—16; B = zones 17—32; C = zones 33—48); conventional radios are programmed at shipment to select repeater direct / talkaround (position A = direct; B and C = talkaround).

5 **Indicator LED –** Indicates the radio operating status; green / red light-emitting diode (LED).

6 **Orange Top Button –** Programmable. Programmed at shipment for emergency alarm (all radios) and emergency call (trunked radios equipped with emergency call only).

7 **Side Button 1 –** Programmable. In SECURENET-equipped radios, pressing this button and the orange top button at the same time will erase the key. Programmed at shipment to control the display's backlight.

8 **Side Button 2 –** Programmable. Trunked radios are programmed at shipment for telephone interconnect; conventional radios are unprogrammed at shipment.

9 **Side Button 3 (Monitor Button) –** Programmable. Trunked radios are programmed at shipment for call response; conventional radios are programmed at shipment for radio monitor.

10 **Push-To-Talk (PTT) Switch –** Engages the transmitter and puts the radio in the transmit mode.

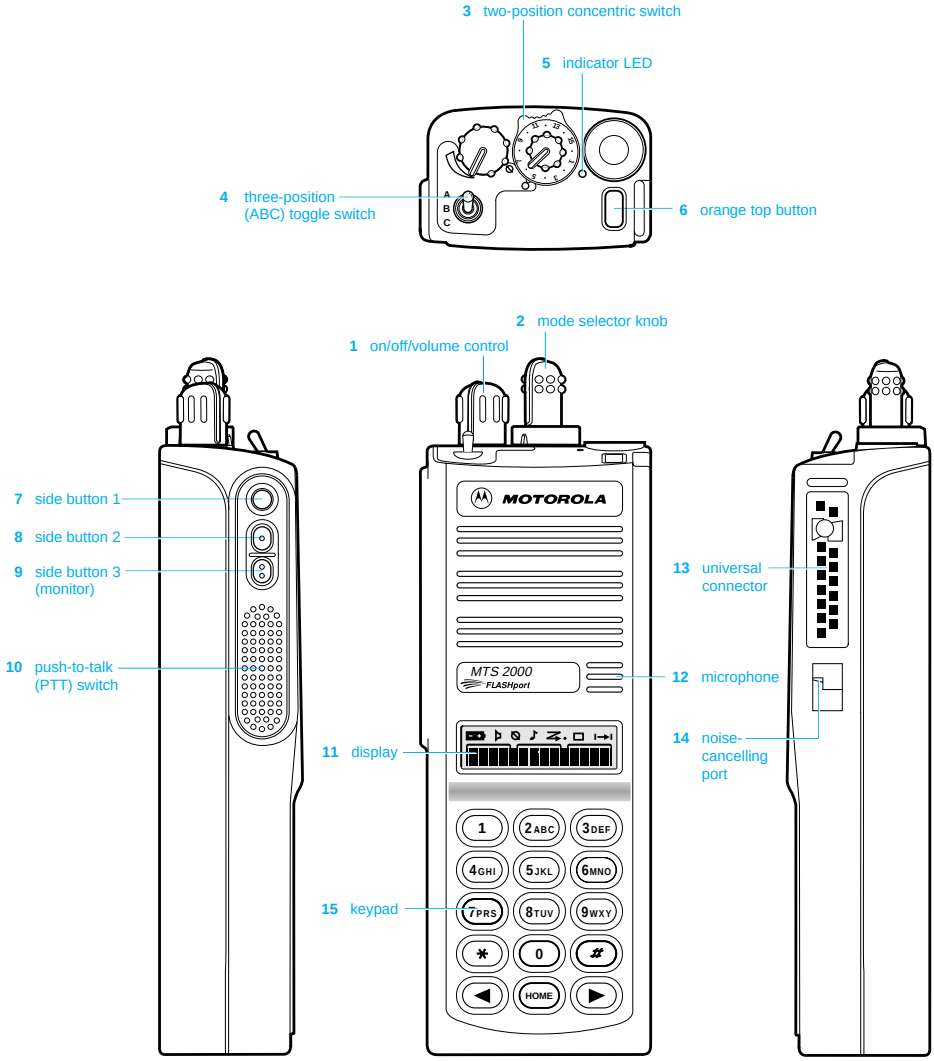
11 **Display –** Provides visual information about many of the radio's features.

12 **Microphone Port** – Accepts voice input to the radio's microphone.

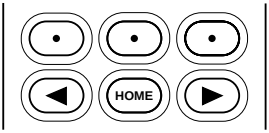
13 **Universal Connector –** Provides access for programming, testing, and accessory connections.

14 **Noise-Cancelling Port** – Reduces background noise during transmit.

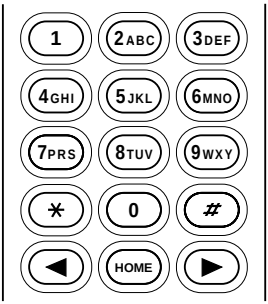
15 **Keypad –** Provides control and data interface for many of the radio's features.


3 two-position concentric switch
5 indicator LED
4 three-position (ABC) toggle switch
6 orange top button
2 mode selector knob
1 on/off/volume control
7 side button 1
8 side button 2
9 side button 3 (monitor)
10 push-to-talk (PTT) switch
13 universal connector
12 microphone
14 noise-cancelling port
11 display
15 keypad
MOTOROLA
MTS 2000
FLASHport

Keypad



The 6-key (MTS 2000 II) or 15-key (MTS 2000 III) keypad controls or inputs data to many of your MTS 2000 radio's features. Both keypads' top three keys access many of these features. In addition, the 15-key keypad's upper 12 keys are arranged, and function, like a standard telephone keypad. The bottom three keys of both keypads are the left arrow key, **HOME** key, and right arrow key.



Selecting a Feature

A unique feature of the MTS 2000 radio is its use of the display to give you quick access to many of the radio's features without having to have a dedicated mechanical key for each feature.

The names of the features (**CALL**, **MUTE**, etc.) are shown on the display, three at a time, with key-like outlines to make them look like keys.

Selection of features is controlled by the three keys directly below the feature names: the left key controls the left feature, the middle key controls the middle feature, and the right key controls the right feature.

Left and Right Arrow Keys

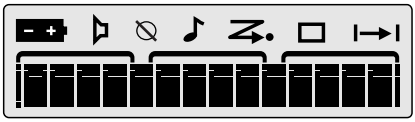
The left (◄) and right (►) arrow keys are used to scroll the display forward or backward through the radio's features and lists. There is no end point to the list, so if you continue to scroll in one direction, the display will "wrap around" back to the beginning of the list. If you hold either key down, the display will scroll at a faster rate until the key is released.

The left arrow key is also used for editing when you are entering information manually from the keypad. Pressing the left arrow key will backspace, and erase the display, one character at a time. If you have erased all the digits, an additional press of the left arrow key will return the display to the preprogrammed list.

HOME Key

The **HOME** key will always return you to the home (default) display. In most cases, this is the current zone / mode. In addition, if you are using a feature that requires it, pressing the **HOME** key will also cause information to be saved in memory before going to the home display. Some radio features will automatically go to the home display when they are completed, without having to press the **HOME** key, thus reducing the number of keypresses required.

Display



The MTS 2000 radio has a 14-character, one-line liquid-crystal display (LCD), which displays either alphanumeric messages or feature information. Above the character displays are eight status annunciators that indicate some of the radio's operating conditions

Display Light

If poor light conditions make the display difficult to read, turn on the radio's display backlight by pressing the light button (normally side button 1). This light will remain on for a preprogrammed time period before it turns off automatically, or you can turn it off immediately by pressing the light button again (the light can be turned off *only* if the radio is not in a feature menu). If, while the light is on, any key or button is pressed (except for side button 3 and the PTT switch), any knob is turned, or any toggle switch is moved, the light will remain on for an additional time period.

Status Annunciators

The status annunciators indicate the status of certain radio functions:

- **Battery Status ( ) –** Flashes when the battery is low.
- **Carrier Squelch ( ) –** Indicates when the active conventional mode is being monitored in the carrier squelch mode; ON = BEING MONITORED / OFF = NOT BEING MONITORED.
- **SECURENET Operation ( ) –** For SECURENET-equipped radios, appears either when the transmit mode you have selected has been preprogrammed for SECURENET operation, or when the mode you have selected has been preprogrammed for selectable operation and the two-position concentric switch is in the SECURENET ( ) position; ON = SECURENET TRANSMISSION / OFF = CLEAR TRANSMISSION.
- **Call Received ( ) –** Flashes when a call or page is received.
- **Scan ( ) –** Indicates when the radio is scanning; ON = SCANNING / OFF = NOT SCANNING.
- **Priority Scan ( ) –** The presence of a dot along with the scan annunciator indicates the receiving of a priority mode; FLASHING DOT = PRIORITY 1 / SOLID DOT = PRIORITY 2.
- **Programming Mode ( ) –** Indicates when the radio is in the programming mode; ON = IN PROGRAMMING MODE / OFF = NOT IN PROGRAMMING MODE.
- **Direct ( ) –** Indicates whether you are talking directly to another radio (talkaround), or through a repeater; ON = DIRECT / OFF = REPEATER.

Alert Tone Indications

The MTS 2000 radio generates a number of audible tones to indicate radio operating conditions:

- **Low Battery –** A low-battery condition is indicated by a high-pitched, cricket-like "chirp-chirp" when the PTT switch is released following a transmission.
- **Successful Power-Up –** A short, medium-pitched tone when the radio is first turned on indicates that the radio has passed its power-up self test and is ready for use.
- **Unsuccessful Power-Up –** A short, low-pitched tone when the radio is first turned on indicates that the radio has failed its power-up self test and is not ready for use. Contact your service representative for service.
- **Transmit on Receive-Only Mode –** If you press the PTT switch while tuned to a "receive-only" mode, you will hear a continuous, low-pitched alert tone, indicating that no transmission is possible on this mode. This tone will continue until the PTT switch is released.
- **Transmit Inhibit on Busy Mode –** If you press the PTT switch while the mode is busy, you will hear a continuous, low-pitched alert tone, indicating that no transmission is possible on this mode. This tone will continue until the PTT switch is released.
- **Invalid Mode –** A continuous, low-pitched tone is heard when an invalid or unprogrammed operation is attempted on the radio.
- **Valid (Good) Key Press –** A short, medium-pitched tone when a keypad key is pressed indicates that the key press was accepted.
- **Invalid (Bad) Key Press –** A short, low-pitched tone when a keypad key is pressed indicates that the key press was rejected.
- **Emergency Alarm Entry –** A short, medium-pitched tone when the emergency button is pressed indicates that the radio has entered the emergency mode.
- **Emergency Alarm / Call Exit –** A continuous, medium-pitched tone when the radio is in the emergency mode indicates that the radio has exited the emergency mode.
- **Failsoft (Trunked Systems Only) –** A faint "beeping" tone every ten seconds indicates that the radio is operating in the failsoft mode.
- **Time-Out Timer Warning –** Your radio's time-out timer limits the length of your transmission time. When you are pressing the PTT switch (transmitting), a short, low-pitched warning tone will sound four seconds before the allotted time will expire.
- **Time-Out Timer Timed-Out –** If you hold down the PTT switch longer than the time-out timer's allotted time, a continuous, low-pitched tone will sound, indicating that your transmission has been cut off. This tone will continue until the PTT switch is released.
- **Phone Busy –** A "bah-bah-bah-bah" tone when telephone interconnect is accessed indicates that all available modes are busy and the radio is in queue for the next available phone line.

Alert Tone Indications (cont.)

- **Call Alert™ (Page) Received –** A group of four medium-pitched tones every five seconds indicates that your radio has received a Call Alert page.
- **Call Alert™ (Page) Sent –** A single medium-pitched tone (central acknowledge), followed by a group of four medium-pitched tones indicates that a Call Alert page sent by your radio has been received by the target radio.
- **Private Conversation™ Call Received –** A group of two medium-pitched tones (800MHz radios only) indicates that your radio has received a Private Conversation call. For all other frequency radios and for enhanced Private Conversation, this sequence will be repeated every five seconds for approximately 20 seconds
- **Trunked System Busy (Trunked Systems Only) –** A "bah-bah-bah-bah" tone when a trunked system is accessed indicates that all available modes are busy and the radio is in queue for the next available mode.
- **Call Back (Trunked Systems Only} –** A group of three medium-pitched tones (di-di-dit) indicates that a talkgroup is now available for your previously requested transmission.
- **Keyfail (SECURENET-Equipped Radios Only) –** Indicates when there is a problem with transmitting in encrypted (SECURENET) operation, due to loss of the encryption key. If programmed and the key is lost or erased, a group of six beeps sounds immediately. In addition, if the two-position concentric switch is in the SECURENET (⃠) position: (a) if programmed, and the PTT switch *is not being pressed*, the radio will sound six beeps every 5 to 10 seconds, or (b) if the PTT switch *is being pressed*, the radio will sound continuous beeps until the PTT switch is released, after which (if programmed) it will sound six beeps every 5 to 10 seconds. This will continue until the two-position concentric switch is moved to the clear (◯) position, a clear-only mode is selected, or the key is reloaded.
    - Consecutive medium-pitched tones during a secure transmission indicate that there is a problem with encrypted (SECURENET) operation due to loss of the encryption key.
    - Six medium-pitched tones every 5 to 10 seconds while the radio is not transmitting also serve as a reminder that there is a problem with encrypted (SECURENET) operation. The keyfail reminder will sound when the radio is in clear-only operation, which can be selected either by switching to a preprogrammed clear-only mode or by moving the two-position concentric switch to the clear (◯) position on a secure-/clear-selectable mode.
    - Six medium-pitched tones when the radio is first turned on also indicate that there is a problem with encrypted (SECURENET) operation.
    - Keyfail tones will not sound once the key has been reloaded.
- **Clear Operation (SECURENET-Equipped Radios Only) –** If the radio is so programmed, one beep immediately after the PTT switch is pressed will indicate that your transmission is clear (non-encrypted).

LED Indications

The indicator LED on top of the radio indicates radio operating conditions:

A. With PTT switch pressed (radio transmitting)

- Continuous red LED—normal transmission
- LED unlit—radio is not transmitting
- Blinking red light—Low battery (conventional radio only feature; programmable from the RSS)

B. With PTT switch released (radio receiving)

- Blinking red light—Mode busy (conventional modes only)
- Blinking green light—Receipt of a telephone call, Private Conversation call, or Call Alert page

Time-Out Timer

The time-out timer feature limits the amount of time that you can continuously transmit on a mode. If you hold down the PTT switch longer than the allotted time:

- A pre-alert warning tone will be generated four seconds before termination of your transmission to warn you that your conversation is about to be cut off.
- Four seconds later your transmission is terminated and an alert tone is emitted until the PTT is released.

Conventional or Trunked Radio Operation

Your MTS 2000 radio is capable of both conventional and trunked operation:

- **Conventional Operation –** During conventional operation, your MTS 2000 radio performs like a conventional two-way radio. That is, you must monitor the selected mode before transmitting (by checking the LED for mode busy [blinks red when busy] and listening for the “mode busy” tone, or pressing the monitor button) to ensure that you are observing standard two-way radio transmission protocol by not “talking over” someone who is already transmitting.
- **Trunked Operation –** During trunked operation, your MTS 2000 radio offers a number of advantages, including fast system access, enhanced privacy, and ease of operation. In a trunked system, there is no need for you to monitor a mode before transmitting.

Radio On / Off; Power-Up

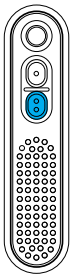
1. Turn the radio on by rotating the volume control clockwise. The radio goes through a power-up self check and, if it passes the check, the display momentarily shows "**SELF TEST**." A good-power-up, high-pitched tone sounds to indicate that the radio has passed the self check.

If the radio fails the self check, the display shows "**ERROR XX / XX**" (where XX / XX is an alphanumeric error code), accompanied by a bad-power-up, low-pitched tone. Turn the radio off, check the battery, and turn the radio back on. If the radio still does not pass the self check, a problem exists in the radio. Contact your nearest Motorola Service Shop.

Note: The power-up self check verifies that the radio's microprocessor-based systems are working, but it does not check all of the rf components, nor does it check the operation of all customer-specific features. Motorola recommends that the functionality of the radio be periodically checked by an authorized Motorola service shop.

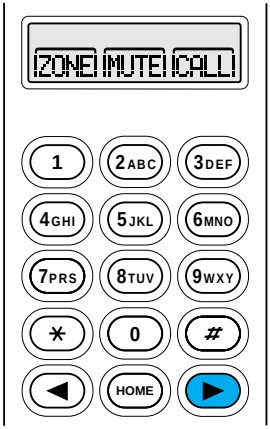
2. (SECURENET-equipped radios only) - If the encryption key has failed, the display will momentarily show "KEYFAIL," accompanied by a six-beep keyfail tone. For SECURENET operation to function, reload the encryption key from a key variable loader (KVL).
3. Turn the radio off by rotating the volume control fully counterclockwise until you hear a click.

Monitoring (Conventional Modes Only)



Turn the radio on, momentarily press the monitor button (typically side button 3), and listen for activity. To put the radio in permanent monitor operation (Private-Line® (PL) defeat), press and hold the monitor button for five seconds (programmable time). The radio emits a short, high-pitched tone as it enters the permanent monitor mode. To return the radio to its original squelch state, tap the monitor button again or press the PTT switch.

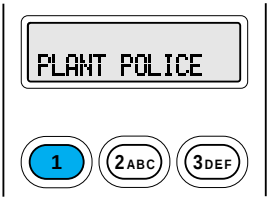
Note (Monitor Operation): SECURENET transmissions from a radio that has the same key as the monitoring radio will be heard clearly, unless the monitoring radio has had its key erased or is using a different key; then, the transmission will be heard as noise that is nearly indistinguishable from channel noise.



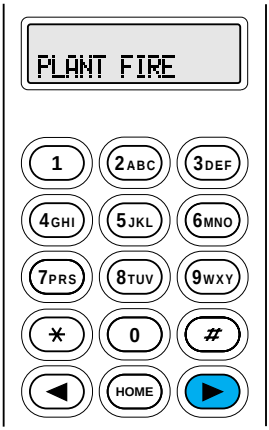
Selecting a Zone and Mode

A *mode* is a channel or talkgroup and all features slaved to it. A *zone* is a grouping of modes that can be selected either through the 3-position toggle switch, or via the keypad. Before you send or receive, set the radio to the desired zone and mode. To do this:

1. Turn the radio on and press the right arrow key (►) until "**ZONE**" appears on the display.



2. Press the key below "**ZONE**." The current zone name will flash on the display; the mode name will stay on solid.



3a. Press the right arrow key (►) until the desired zone name appears on the display.

or

3b. Enter the number (1 through 16) of the desired zone. The new zone name appears, flashing (MTS 2000 III models only) .

4. Press the **HOME** key or the PTT switch, or turn the mode selector knob, to store the displayed zone. This will be the new “home” (default) zone. If you pressed the PTT switch, you will also transmit on the displayed mode (see “Transmitting”).

5. Turn the mode selector knob to the desired mode. The display shows the selected mode’s name.

Notes:

- If the selected mode is unprogrammed, the display will show “**UNPROGRAMMED**,” and you will hear an invalid-mode tone until a valid programmed mode is selected.
- You can use the mode selector knob at any time to select the mode.

Receiving a Call

Conventional Modes

1. Turn the radio on and select the desired zone and mode (see “Selecting a Zone and Mode”).
2. Listen until you hear a transmission, then adjust the volume control for a comfortable listening level.

   Or, if a button is programmed for “volume set,” press this button and adjust the volume to a comfortable listening level.

   Notes:

   - The squelch opening level setting may be reprogrammed at an authorized service facility.
   - MTS 2000 SECURENET-equipped radios automatically determine whether a SECURENET or clear voice message is being received. This allows you to receive either type of message without having to reset the two-position concentric switch.

3. Your radio is now set to receive calls on the selected mode.
4. Refer to the Coded Squelch paragraph of the “General Radio Features Operation” section for Tone Private-Line® (PL), Digital Private-Line™ (DPL) operation.

   Note: A mode-busy feature is available; the red LED will blink when your radio is receiving to indicate that the mode is busy. The radio will not unmute if the mode is busy with a coded-squelch message that is not intended for you (see “Coded Squelch Operation”).

Trunked Systems

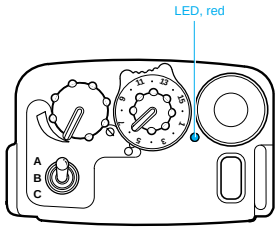
1. Turn the radio on and select the desired zone and mode (see “Selecting a Zone and Mode”).
2. Listen until you hear a transmission, then adjust the volume control for a comfortable listening level, or, if your radio is so programmed, use the “volume set” feature as discussed in step 2 of “Conventional Modes.”

   Note: MTS 2000 SECURENET-equipped radios automatically determine whether a SECURENET or clear voice message is being received. This allows you to receive either type of message without having to reset the two-position concentric switch.

3. Your radio is now set to receive calls on the selected zone and mode.

Transmitting

Conventional Modes



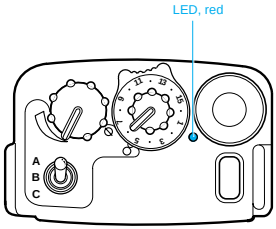
1. Turn the radio on and select the desired zone and mode (see “Selecting a Zone and Mode”).
2. (SECURENET-equipped radios only). If the mode is programmed as neither secure-only nor clear-only, turn the two-position concentric switch to the desired postion (⃠ = SECURENET voice transmission; ◯ = clear voice transmission).
3. Listen for a transmission and adjust the volume control for a comfortable listening level. Refer to step 2 of “Conventional Modes,” “Receiving a Call.”
4. Do not interrupt another user. If the mode on which you are transmitting is programmed to receive PL (or the proper code if SECURENET-equipped), ensure that the mode is not in use by momentarily depressing the monitor button to listen for activity. If the mode-busy feature is enabled, a blinking red LED on receive (PTT released) will indicate that the mode is currently busy and you should not transmit.

   Note: The mode-busy feature is suggested for SECURENET-equipped radios, since monitoring of SECURENET activity with a different key will sound like noise that is nearly indistinguishable from channel noise.
5. When the mode is clear, press and hold the PTT switch on the side of the radio and speak slowly and clearly into the microphone area. The red LED will be lit continuously while the radio is transmitting. When you have finished talking (transmitting), release the PTT to listen (receive).

   Notes:

   - If a mode is programmed for receive only, any attempt to transmit on that mode will cause an invalid-mode tone to sound until the PTT switch is released.
   - To take full advantage of the noise-cancelling feature, avoid blocking the noise-cancelling port during transmitting.

Transmitting (cont.)



Trunked Systems

1. Turn the radio on and select the desired trunked zone and mode (see “Selecting a Zone and Mode”).
2. (SECURENET-equipped radios only). If the mode is programmed as neither secure-only nor clear-only, turn the two-position concentric switch to the desired position (⃠ = SECURENET voice transmission; ◯ = clear voice transmission).
3. Press and hold the PTT switch on the side of the radio and speak slowly and clearly into the microphone area. The red LED will be lit while the radio is transmitting. When your transmission is completed, release the PTT to listen.

Notes:

- If you hear a busy signal (a low-frequency “bah-bah-bah-bah”), release the PTT switch and wait for a call-back tone (sounds like “di-di-dit”). When you hear the call-back tone you will have three seconds to press the PTT switch, allowing you to make your call without getting another busy signal.
- If a continuous talk-prohibit tone is heard when the PTT switch is pressed, transmission is not possible. The radio may be out of range; or (SECURENET-equipped only) the two-position concentric switch may be in the incorrect position for that mode; for instance, the particular mode might be slaved encrypted voice and the switch set to the unencrypted voice position.
- Avoid blocking the noise-cancelling port during transmitting so as to take full advantage of the noise-cancelling feature.
- Transmissions on modes (talkgroups) that are programmed as neither secure-only nor clear-only can be changed from clear to SECURENET by turning the two-position concentric switch and pressing the PTT switch. However, you cannot change from SECURENET to clear during a transmission; you must wait until the transmission is ended before changing to clear operation.
- You will be able to change from clear operation to SECURENET operation, but *not* from SECURENET to clear during a call.
- If no secure voice channels are currently available for a SECURENET transmission that you wish to make, the display will show “NO SECURE,” and you must switch to a clear mode or wait until a secure voice channel is available.

Low-Battery Alert

The radio will emit an alert tone to indicate a low-battery condition if the battery voltage falls below the low-voltage level. The tone will be emitted when the PTT is released in the transmit mode, and when the low-battery condition is detected in the receive mode.

Coded Squelch Operation

Tone Private-Line® (PL), Digital Private-Line™ (DPL), and carrier squelch operation are all available in the same radio, on a per-mode basis. When in carrier squelch operation, all traffic on the mode is heard. When in PL or DPL operation, your radio responds to only those messages intended for you. When this feature is mode-slaved, PL, DPL, or carrier squelch is programmed to each mode, and you need not move any switches for activation. Alternatively, this feature can be programmed to the ABC switch: carrier squelch operation in one switch position, and PL or DPL operation in another switch position.

Whenever the radio is operating in carrier squelch, the display will show the carrier-squelch annunciator.

SECURENET Operation

This information applies to both conventional and trunked systems.

1. A SECURENET module must be installed in the radio.
2. An encryption key must be loaded from a key-variable loader (KVL), using the correct loader for the radio's encryption type, into the radio's memory. To load the key, connect the keyloader cable to the universal connector on the side of the radio; refer to the KVL's instruction manual for loading procedure. While the keyloader is attached, the display shows "KEYLOADING." When the key has been loaded successfully, the radio will sound one long beep.

Notes:

- Normal radio transmit and receive will be disabled while the cable is connected to the radio.
- The radio will abort a secure transmission when there is not a valid encryption key. When this happens, the display shows "KEYFAIL," and a continuous keyfail tone (consecutive medium-pitched beeps) sounds until the PTT switch is released.

3. To erase a key, hold down the green side button 1 and the orange top button at the same time. When key erase is complete, the display will show "ERASED."

   Note: Do not press the orange top button first. This button may have been programmed for emergency operation.

   If the battery is removed for more than approximately 30 seconds from a radio that is turned off, the key may be lost. The key may also be lost from a radio that is turned on if the battery is removed for any length of time, or if the battery's charge is allowed to drop to too low a level. If the key is lost, it will have to be reloaded using the KVL. Battery removal ***is not*** a guaranteed method of key erasure.

4. On SECURENET-equipped radios, the two-position concentric switch selects whether the radio will be transmitting clear or secure audio, if a mode is programmed for neither secure- nor clear-only operation. The two-position concentric switch will set the transmit operation of the radio before PTT. The switch cannot change the transmit operation while the PTT is pressed.

   If a mode is programmed for SECURENET-only operation, and the two-position concentric switch is in the clear (◯) position, when the PTT switch is pressed, the display will show "SECURE ONLY," an invalid-mode tone will sound, and the radio will not transmit until the two-position concentric switch is set to the SECURENET (⃠) position.

   If a mode is programmed for clear-only operation, and the two-position concentric switch is in the SECURENET (⃠) position, when the PTT switch is pressed, the display will show "CLEAR ONLY," an invalid-mode tone will sound, and the radio will not transmit until the two-position concentric switch is set to the clear (◯) position.

Variable RF Power Level (VHF and UHF Radios Only)

VHF and UHF radios can have more than one power level. High power can be programmed on those modes where the frequency is licensed for high power, and low power can be programmed on all other modes. The high- / low-power feature can also be programmed to the ABC switch, with one switch position being low-power operation, and another switch position being high-power operation.

Emergency Operation

Pressing the orange top emergency button (for radios with emergency operation) will send out an emergency signal, which takes precedence over any other signalling activity in progress. This emergency signal can take two forms: emergency alarm and emergency call. The MTS 2000 radio can have either or both signal types enabled.

- The *emergency alarm* feature sends a data transmission on the trunked control mode to alert the dispatcher to an emergency condition and identify the unit sending the emergency signal.
- The *emergency call* (radios with trunked emergency operation only) is a type of dispatch operation which gives your radio priority access to modes. Emergency call is programmable via the radio service software (RSS) for either tactical or non-tactical operation. *Tactical* emergency operation places the call to the currently selected mode; *non-tactical* operation places the call to a predetermined emergency mode.
- Clear or SECURENET emergency call operation will be determined by the preprogramming of the selected mode (talkgroup) or default emergency mode, if set up. Otherwise, transmit operation will be controlled by the position of the two-position concentric switch. You *will not be able* to change from SECURENET operation to clear operation, or from clear operation to SECURENET operation, during a call.

"Emergency" signals a critical situation. It should never be used for any other reason.

Emergency Operation (cont.)

Sending an Emergency Alarm

1. Press and hold the emergency button (the length of button press is RSS programmable) until the LED lights solid red and the display alternates between showing "**EMERGENCY**" and the current zone and mode. A short, medium-pitched emergency tone sounds.
2. When the trunked emergency alarm is acknowledged by the central controller, the radio sounds four beeps and the alarm ends. The radio returns to normal operation or, if enabled in your radio (trunked emergency call systems only), enters at step 3 of "Sending an Emergency Call." While in emergency call operation, subsequent presses of the emergency button will reinitiate the emergency silence sequence.

   Unmute Option - With this option enabled, the radio will unmute to all voice activity on the emergency channel. If disabled, the radio will operate as normal, muting all voice activity on the emergency channel until the emergency alarm is cancelled. This option is RSS programmable.

Sending a Silent Emergency Alarm

In radios with the silent emergency alarm option enabled, pressing the emergency button sends an emergency signal to the dispatcher. During the emergency alarm procedure: the LED will not light, tones will not be heard, and the display will not change.

The audio will be muted (turned off), and will remain so until you exit the emergency state.

Cancelling an Emergency Alarm

Press the emergency button for more than 1 1/2 seconds (programmable); a medium-pitched emergency-exit tone sounds until the button is released and the radio returns to normal operation.

The alarm will also be cancelled (without emergency-exit tone) by:

- pressing the PTT switch (see the note below),
- turning the radio off, or
- receiving an acknowledge from the dispatcher.

Note: Pressing the PTT switch while the radio is in *emergency alarm* operation will place the radio in *emergency call* operation if emergency call is enabled. (see step 3 of "Sending an Emergency Call").

Emergency Operation (cont.)

Sending an Emergency Call (Radios With Trunked Emergency Call Operation Only)

1. Press the emergency button. The LED lights solid red, the display alternates between showing "**EMERGENCY**" and the current trunked zone and mode, and a short, medium-pitched emergency tone sounds.
2. Press the PTT switch to request a priority mode assignment in the trunked system.
3. While the radio is in emergency call operation it operates in the usual dispatch manner.

   Note:

   - The trunked mode you will talk to in an emergency is controlled by whether your radio is programmed for tactical or non-tactical operation. If tactical, you will be talking to the mode you selected before entering emergency call; if non-tactical, you will talk to a preprogrammed emergency mode.
   - If you change trunked modes while in emergency call operation, the emergency call will be moved to, and continued on, the new mode.
4. It is important that you exit the emergency call mode when you have finished your emergency call. To do this, press the emergency button for more than 1 1/2 seconds (programmable). You will hear a medium-pitched emergency-exit tone until the emergency button is released, and the radio will return to normal operation.

Emergency with Voice to Follow

With this feature (aka "Hot Microphone"), the radio is placed in the transmit mode for a preprogrammed period of time (programmable by RSS) after the emergency alarm is activated. During this time period, the "hands-free" mode is activated, and voice transmisions can be made without pressing the PTT.

After the transmit time has expired, the unit will dekey and go into a receive mode as it normally does after dekeying. At this point, normal operation resumes; the user will be required to press PTT for any further transmissions on that emergency channel.

Failsoft Operation (Trunked Systems Only)

The “failsoft” system ensures that you will continue to have radio communications capability in the event of trunked system failure. During trunked operation, the radio will automatically go into failsoft operation if the central trunking controller fails for any reason. While in failsoft, your radio will transmit and receive on a predetermined frequency on a conventional, as opposed to trunked, mode. When the trunked system returns to normal operation, the radio will automatically leave the failsoft operation and return to trunked operation.

Clear or SECURENET operation will be determined by the preprogramming of the selected mode (talkgroup), if so programmed. Otherwise, transmit operation will be controlled by the position of the two-position concentric switch. You *will be able* to change from SECURENET operation to clear operation, or from clear to SECURENET, during a call.

When the radio is in failsoft operation, you will hear a faint “beeping” sound every ten seconds, and the radio will become unsquelched. At the same time, the display will alternate between showing “**FAILSOFT**” and the current active trunked zone.

Transmitter Disable Operation (Non-SECURENET-Equipped Radios Only)

If your radio is *NOT* SECURENET-equipped, the Transmitter Disable feature, when enabled in your radio (via radio service software [RSS] programming, allows you to put the radio in a condition where it will not transmit. This will prevent the radio from accidentally transmitting in a hazardous environment. All transmissions, including automatic data transmissions, will be inhibited.

To disable the radio transmitter, put the two-position concentric switch in the" ⃠ " position. When your radio's transmitter has been disabled, pressing the PTT switch will cause a low-pitched alert tone to sound, indicating that a transmission is not taking place.

Note: While the transmission is disabled, if you attempt to transmit, the display will react as in normal operation. However, the red LED transmit indicator will not turn on.

To enable the transmitter for normal operation, put the two-position concentric switch in the " ◯ " position.

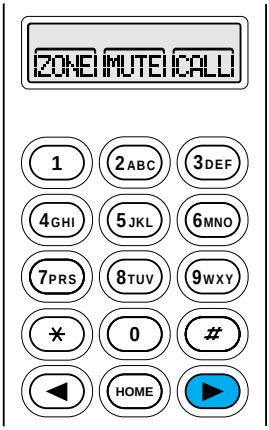
Native Language Displays

This feature allows you to choose any one of six languages for your radio displays:

1. English
2. Spanish
3. Italian
4. French
5. German
6. Portuguese

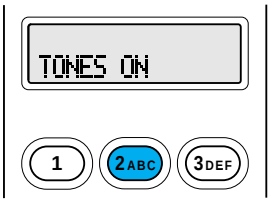
All of your radio displays will be shown in the selected language.

Muting the Keypad Tones

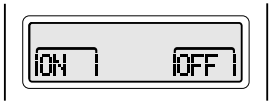


The radio's keypad tones, normally heard each time a keypad key is pressed, can be turned off (muted) or on (unmuted) at your discretion. To use the keypad mute feature:

1. Press the right arrow key (►) until "**MUTE**" appears on the display.



2. Press the key below "**MUTE**." The current mute state ("**TONES ON**" = keypad tones unmuted; "**TONES OFF**" = keypad tones muted) appears on the display for a few seconds.



Then, the display shows the additional selections, "**ON**" and "**OFF**."

3. Press the key below the desired mute state (on or off). The radio automatically returns to the home display.

   Note: Pressing the **HOME** key or the PTT switch will exit this menu without changing the mute selection

Scan Operation

The scan feature allows you to monitor activity on different conventional or trunked modes by scanning a "scan list" of modes. Each scan list can contain as many as 16 different modes; each radio can have up to 20 different scan lists. The modes to be scanned in a scan list can be programmed with the radio service software (RSS).

Three types of scan lists are available (Refer to the RSS manual for additional information):

- Trunking Priority Monitor—Comprises modes that are all from the same trunked system.
- Conventional—Comprises conventional-only modes.
- Talkgroup Scan—Comprises conventional modes and trunked modes from more than one trunking system. Priority operation *is not* available in this type of list.

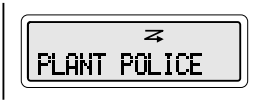
The radio supports both priority and non-priority scanning. With priority scanning enabled, a scan list can have one mode assigned as the first priority mode, and a second as the second priority mode.

All MTS 2000 radios support automatic scanning (autoscan), which is programmed into the radio through the RSS. With this feature, the radio begins scanning whenever you select a mode to which a scan list is assigned (strapped). The radio will continue autoscanning until you select a mode that does not have autoscan enabled.

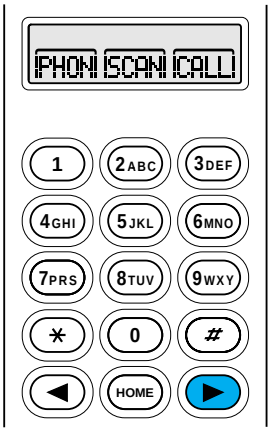
In radios that are not SECURENET-equipped, scan can can be selected by the scan select switch (two-position concentric switch) or the menu.

Turning Scan On / Off Using the Scan Select Switch

1. To turn scanning on, place the scan select switch (programmable via the RSS) in the "scan on" position.
2. The scan status annunciator appears on the display, indicating that scan is active, and the radio begins scanning. The scan annunciator will remain on until scan is turned off.



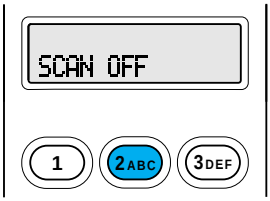
3. To turn scanning off, place the scan select switch in the "scan off" position.
4. The scan status annunciator turns off, indicating that scan is off, and the radio stops scanning.



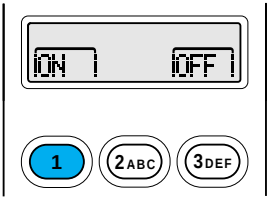
Scan Operation (cont.)

Turning Scan On Using the Keypad

1. Press the right arrow key (►) until "**SCAN**" appears on the display.



2. Press the key below "**SCAN**." The current scan state (in this case, "**SCAN OFF**") appears on the display for a few seconds.



Then, the display shows "**ON**" and "**OFF**."

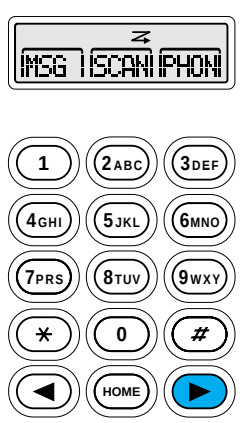
3. Press the key below "**ON**." On the display, the scan status annunciator turns on and the radio automatically returns to the home display.

Note: The scan status annunciator will remain on until scan is turned off.

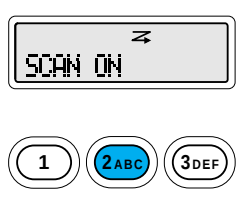
Scan Operation (cont.)

Turning Scan Off Using the **Keypad**

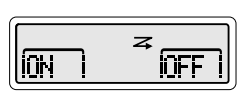
1. With the scan status annunciator showing on the display, press the right arrow key (►) until "**SCAN**" appears on the display.



2. Press the key below "**SCAN**." The current scan state (in this case, "**SCAN ON**") appears on the display for a few seconds.



Then, the display shows "**ON**" and "**OFF**."



3. Press the key below "**OFF**." On the display, the scan status annunciator turns off, and the radio automatically returns to the home display.

Notes:

- The radio will stop scanning at this point.
- Pressing the PTT switch or the **HOME** key will exit this menu without changing the scan selection.

Scan Operation (cont.)

Deleting Nuisance Modes

When the radio scans to a mode that you do not wish to hear (nuisance mode), you can temporarily delete the mode from the scan list.

1. When the radio is locked onto the mode to be deleted, press the nuisance-mode delete button (programmed through the RSS). A valid-keypress chirp is heard, indicating that the mode has been deleted.

   Note: Priority modes cannot be deleted.

2. The radio continues scanning the remaining modes in the list. To resume scanning the deleted mode, you must leave and reenter scan operation.

Dynamic Priority Change (Conventional Operation Only)

While the radio is scanning, the dynamic priority change feature lets you *temporarily* change any mode in a scan list (except the priority 1 mode) to the priority 2 mode. The present priority 2 mode becomes a non-priority mode. This change remains in effect until scan is turned off, then scanning reverts back to the preprogrammed state.

1. When the radio is locked onto the mode to be designated as priority 2, press the dynamic priority button (programmed through the RSS). A valid-keypress chirp is heard, indicating that the priority change has occurred.

   Note: The priority 1 mode cannot be changed to priority 2.

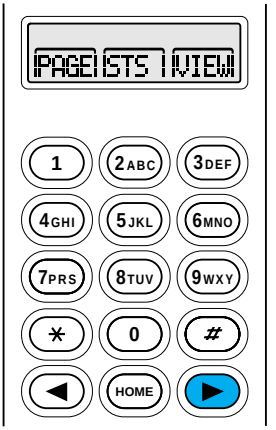
2. The radio continues scanning the remaining modes in the list. To resume scanning the preprogrammed priority 2 mode, you must leave and reenter scan operation.

Scan Operation (cont.)

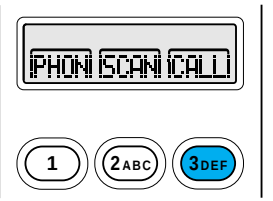
Viewing a Scan List

The "view scan list" feature allows you to view the members of the scan list associated with the currently selected mode.

1. To view a scan list, press the right arrow key (►) until "**VIEW**" appears on the display.

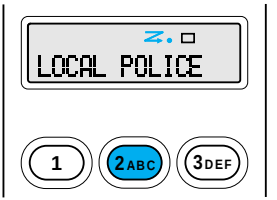


2. Press the key below "**VIEW**." The display changes to show the types of lists (scan, phone, call, etc.) that can be examined with the "list view" feature.

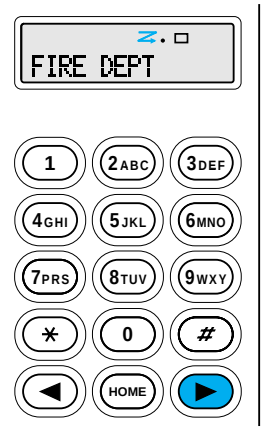


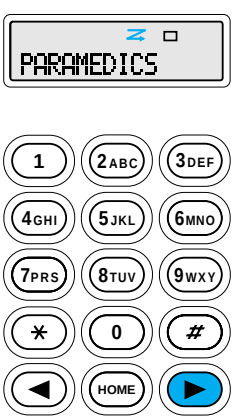
3. Press the key below "**SCAN**." The display shows the first member of the scan list. The scan status annunciator flashes (indicating that a scan list is being viewed), the priority scan annunciator flashes (indicating a priority 1 mode), and the programming-mode annunciator turns on (the radio is using the list view feature).

   Note: The programming-mode annunciator will remain on until the list view mode is exited.



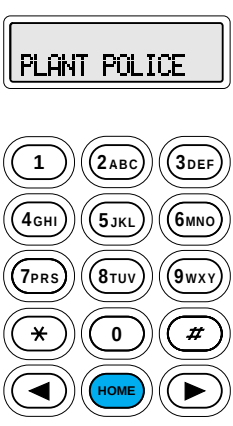
4. Press the right arrow key (►). The display shows the second member of the scan list. The scan status annunciator is flashing, the priority scan annunciator is on constantly (indicating a priority 2 mode), and the programming-mode annunciator is on constantly.





Scan Operation (cont.)

5. Press the right arrow key (►) again. The display shows the next member of the scan list. The scan status annunciator is flashing, the priority scan annunciator is off (indicating a non-priority mode), and the programming mode annunciator is on constantly.



6. Each time you press the right arrow key (►), the display changes to show the next member of the scan list. When the last member of the scan list is showing, the next press of the right arrow key will cause the display to scroll back to the first member of the list.

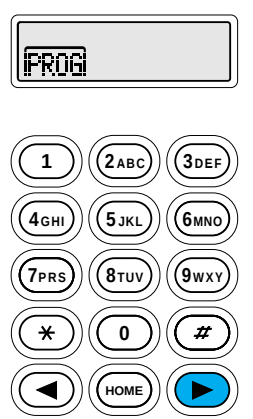
7. To leave the scan list feature, press the **HOME** key or the PTT switch, or turn the mode selector knob. The radio returns to the home display; the scan and programming mode annunciators turn off. Pressing the PTT switch will also cause the radio to transmit.

Programming the Radio's Lists

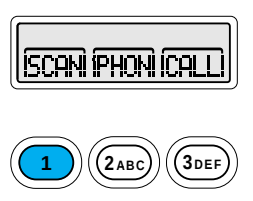
Programming the Telephone List Numbers (MTS 2000 III Model Only)

This feature lets you use the radio's keypad to change the telephone numbers assigned to any of the telephone list members. Each phone number can have up to 16 digits. Only the numbers can be changed from the keypad; to change the names of the members, the RSS must be used.

1. To change the telephone list, press the right arrow key (►) until "**PROG**" appears on the display.



2. Press the key below "**PROG**." The display changes to show the types of lists (phone, call, etc.) that can be programmed.



3. Press the key below "**PHON**." The display shows the first programmable member of the telephone list and the programming mode status annunciator flashes, indicating that the radio is in the program mode. The programming mode annunciator will continue flashing while the radio is in the program mode.

4. To move around in the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the next member of the list; the left arrow key will take you backwards to the previous member of the list. You can also use the keypad to enter the desired member's position number (any programmed location from 1 through 19) in the list to go directly to that member.

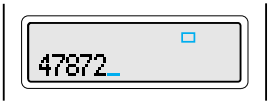
5. When you stop on a member of the list, the display will alternate between showing the member's name and telephone number.

Programming the Radio's Lists (cont.)

6. Press the "select" key (programmed via the RSS) to enter the number-edit mode. The display shows the current member's telephone number. You can now change numbers, using any of the numeric (**0** – **9**) keys, as well as the "*****" and "**#**" keys. The blinking cursor indicates the position of the next number to be added.

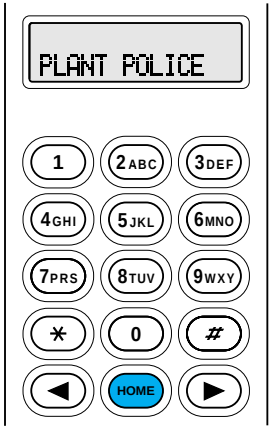
   Some telephone networks require a pause in the phone dialing sequence to allow for delays in the telephone switches. A pause character can be placed in the 16-digit number by first pressing the "*****" key, then pressing the "**#**" key. The display will show a "**P**" for pause.

   Note: In this mode, the left arrow key (◄) will function as a backspace key. Pressing this key will erase the previous digit, and the cursor will move to the left. When the last digit on the display has been erased, an additional press of this key or the right arrow key (►) will cause you to leave the number-edit mode without making any changes, and re-enter the procedure at step 5.



7. Begin changing the telephone number. The display shows the numbers as they are entered; the cursor flashes to indicate the location of the next number to be entered. When the maximum number of digits (16) have been entered, the cursor will disappear. If you try to add any more digits, you will hear an invalid (bad) keypress alert tone.

8. When you have finished changing the telephone number, press the select key again; the change is saved in the radio's memory and you are returned to step 5. The display will again alternate between showing the member's name and telephone number; you can change additional numbers from this point.



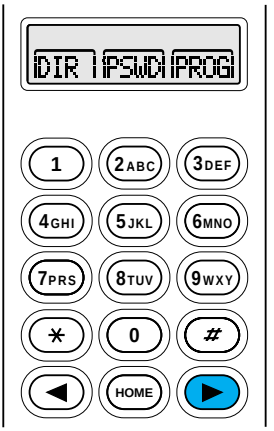
9. When you have finished making changes, press the **HOME** key to exit the program mode. The radio will return to the home display.

Programming the Radio's Lists (cont.)

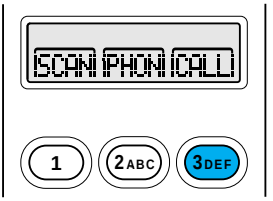
Programming the Call List (Trunked MTS 2000 III Models Only)

This feature lets you use the radio's keypad to change the radio ID numbers assigned to the call list used by the trunked Private Conversation™ and Call Alert™ features.

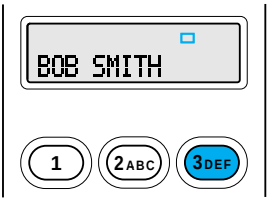
1. To change the call list radio ID numbers, press the right arrow key (►) until "**PROG**" appears on the display.



2. Press the key below "**PROG**." The display changes to show the types of lists (phone, call, etc.) that can be programmed.



3. Press the key below "**CALL**" or "**PAGE**" (either choice will access the same call list). The display shows the first member of the call list and the programming mode status annunciator flashes, indicating that the radio is in the program mode. The programming mode annunciator will continue flashing while the radio is in the program mode.



4. To move around in the list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the next member of the list; the left arrow key will take you backwards to the previous member of the list. You can also use the keypad to enter the desired member's position number (any preprogrammed location from 1 through 19) in the list to go directly to that member.

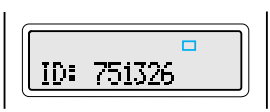
5. When you stop on a member of the list, the display will alternate between showing the member's name and radio ID number.

Programming the Radio's Lists (cont.)

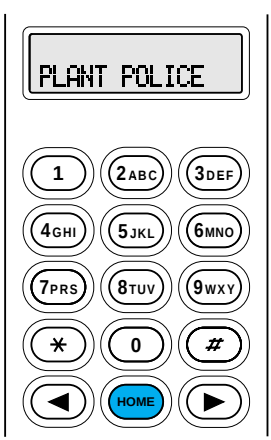
6. Press the "select" key (programmable via the RSS) to enter the number-edit mode. The display shows the current member's radio ID number. You can now change numbers, using any of the numeric (**0** – **9**) keys. The blinking cursor indicates the position of the next number to be added.

Note: In this mode, the left arrow key (◄) will function as a backspace key. Pressing this key will erase the previous digit, and the cursor will move to the left. When the last digit on the display has been erased, another press of this key or the right arrow key (►) will cause you to leave the number-edit mode without making any changes, and reenter this procedure at step 5.

7. To change the radio ID number, use the left arrow key to erase the existing ID number's digits. Then, enter the new digits. The display shows the digits as they are being entered; the cursor flashes to indicate the location of the next digit to be entered. When the maximum number of digits have been entered, the cursor will disappear. If you try to add any more digits, you will hear an invalid (bad) keypress alert tone.



8. When you have finished changing the ID number, press the select key again; the change is saved in the radio's memory and you are returned to step 5. The display will again alternate between showing the member's name and radio ID number; you can change additional numbers from this point.

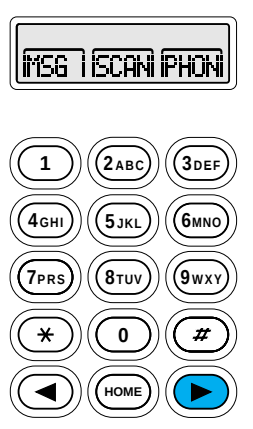


9. When you have finished making changes, press the **HOME** key to exit the program mode. The radio will return to the home display.

Conventional Telephone Operation

The conventional telephone feature allows you to use your conventional radio similar to a standard telephone. To make a call through the telephone system, your radio must send access and hangup codes to the system. Unless otherwise indicated, the conventional telephone sections in this manual assume that the access and hangup codes have been programmed into the radio by the RSS. These codes will then be automatically transmitted.

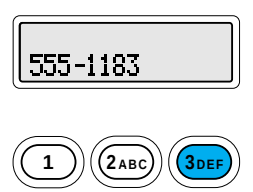
When you are dialing from the keypad (MTS 2000 III model only), your radio may be programmed with either *buffered dial* (you enter all digits and press the PTT before the digits are sent out) or *live dial* (each digit is sent out as it is pressed).



Calling the Last Number Dialed

1. To send a telephone call to the last number dialed, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.



2. Press the key below "**PHON**." The display changes to show the last telephone number dialed. At this point, either:

3a. If your radio is programmed for immediate access, the display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system. Go to step 4.

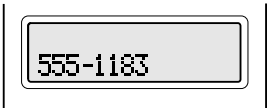
Note: This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key to hang up, and start again at step 1 of this procedure.

or

3b. If your radio is programmed for delayed access, the display does not change. Press the PTT switch. The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

Note: This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key to hang up, and start again at step 1 of this procedure.

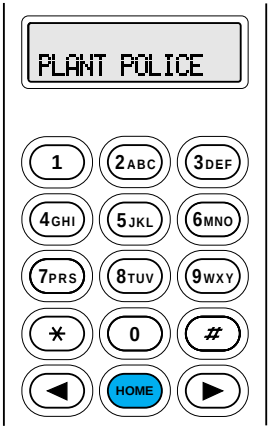
Conventional Telephone Operation (cont.)



4. If the access was successful, you will hear a dial tone. The display will again show the last number dialed.
5. Press the PTT switch to place the telephone call. The telephone number will be sent out; you will hear tones as they are being sent. When the number has been completely sent out, you will hear either a busy signal or ringing.
6. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.



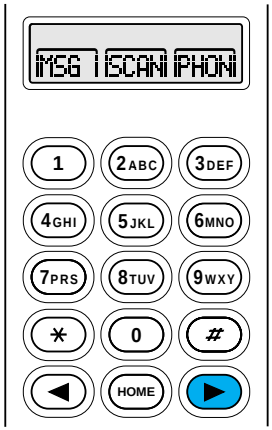
7. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Conventional Telephone Operation (cont.)

Making a Delayed Access Telephone Call Using the Keypad (MTS 2000 III Model Only)

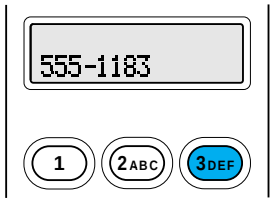
1. To make a delayed access call using the keypad, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.



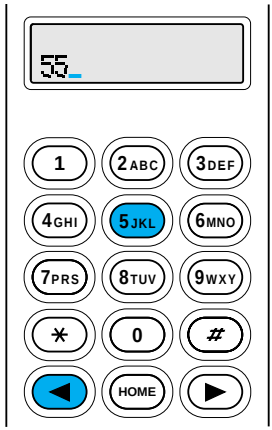
2. Press the key below "**PHON**." The display changes to show the last telephone number dialed.

   The new telephone number can now be entered from the keypad, using any of the numeric (**0** – **9**) keys, as well as the "*****" and "**#**" keys. You can also enter a pause in the telephone number by first pressing the "*****" key, then the "**#**" key. The pause will be shown on the display as a "**P**."



3. Begin entering the telephone number. The display changes to show the numbers as they are being entered. The cursor will flash to indicate the location of the next number to be entered. When the maximum number of digits have been entered, the cursor will disappear.

   Note: Once you have started entering numbers, the left arrow key (◄) will function as a backspace key. Pressing this key will erase the last digit entered, and move the cursor to the left. When the last digit on the display has been erased, an additional press of this key will cause the last member of the preprogrammed telephone list to be displayed; pressing the right arrow key will show the first member of the list.



Conventional Telephone Operation (cont.)

4. When you have finished dialing your number, press the PTT switch. The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Note: This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.

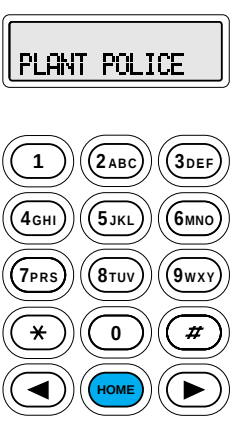
5. If the access was successful, you will hear a dial tone. The display will again show the number dialed.

6. To place the telephone call, press the PTT button again. The telephone number will be sent out; you will hear tones as they are being sent. When the number has been completely sent out, you will hear either a busy signal or ringing.

7. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

   Notes:

   - After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list.
   - Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.



8. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Conventional Telephone Operation (cont.)

Making an Immediate Access Telephone Call Using the Keypad (MTS 2000 III Model Only)

1. To make an immediate access call using the keypad, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "**PLEASE WAIT**" display shown in step 2; skip to step 3.

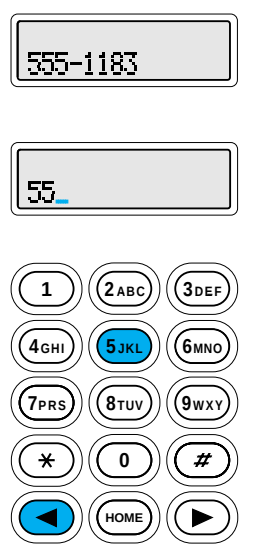
2. Press the key below "**PHON**." The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Note: This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.

3. If the access was successful, you will hear a dial tone. The display will show the last number dialed.

   The new telephone number can now be entered from the keypad, using any of the numeric (**0** – **9**) keys, as well as the "*****" and "**#**" keys. You can also enter a pause in the telephone number by first pressing the "*****" key, then the "**#**" key. The pause will be shown on the display as a "**P**."

4. Enter the telephone number. The display changes to show the numbers as they are being entered. The cursor will flash to indicate the location of the next digit to be entered. When the maximum number of digits have been entered (buffered dial only), the cursor will disappear.



Conventional Telephone Operation (cont.)

5a. If your radio has been programmed by the RSS for "live dial," each digit is sent out as its key is pressed.

or

5b. If your radio has been programmed by the RSS for "buffered dial," the digits of the number are temporarily stored as you enter them. When you have completely entered the number, press the PTT switch to send out the number. The telephone number will be sent out; you will hear tones as they are being sent.

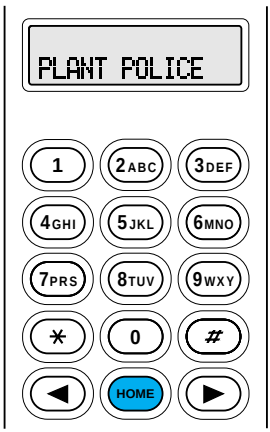
Note: Once you have started entering numbers, the left arrow key (◄) will function as a backspace key. Pressing this key will erase the last digit entered, and move the cursor to the left. When the last digit on the display has been erased, an additional press of this key will cause the last member of the preprogrammed telephone list to be displayed; pressing the right arrow key will show the first member of the list.

6. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.

7. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

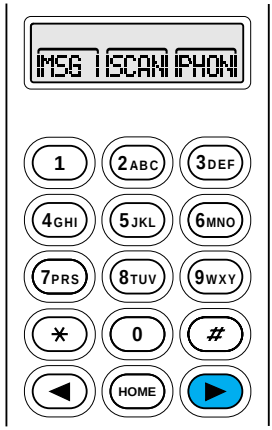


Conventional Telephone Operation (cont.)

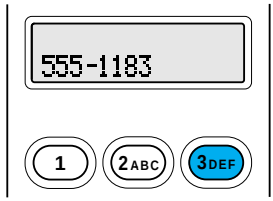
Making a Delayed Access Call to a Number on the Telephone List

1. To make a delayed access call to a number on the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

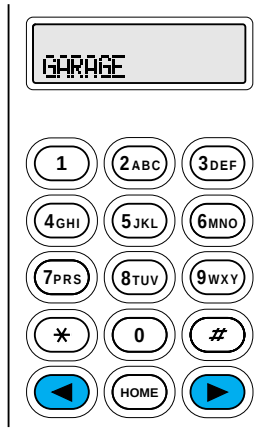
   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.



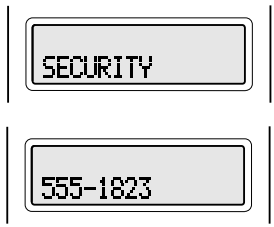
2. Press the key below "**PHON**." The display changes to show the last telephone number dialed.



3. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.



4. When you stop on a member of the list, the display will alternate between showing the member's name and telephone number.



Conventional Telephone Operation (cont.)

4. When you have selected the member you wish to call, press the PTT switch. The display will show "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Note: This is a timed message. If you could not access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.

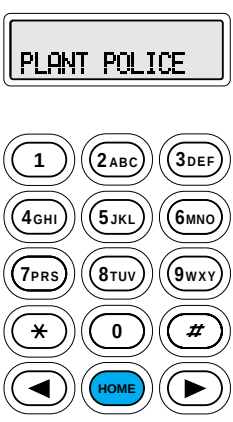
5. If the access was successful, you will hear a dial tone. The display will again show the member's name.

6. To place the telephone call, press the PTT button again. The telephone number will be sent out; you will hear tones as they are being sent.

7. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

   Notes:

   - After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. Press the PTT switch again to send out the extension number.
   - Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.



8. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Conventional Telephone Operation (cont.)

Making an Immediate Access Call to a Number on the Telephone List

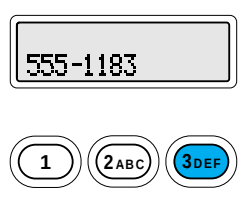
1. To make an immediate access call to a number on the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "**PLEASE WAIT**" display shown in step 2; skip to step 3.

2. Press the key below "**PHON**." The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Note: This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.

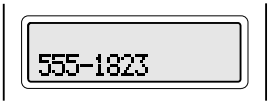
3. If the access was successful, you will hear a dial tone. The display will show the last number dialed.



4. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

Conventional Telephone Operation (cont.)

5. When you stop on a member of the list, the display will alternate between showing the member's name and telephone number.

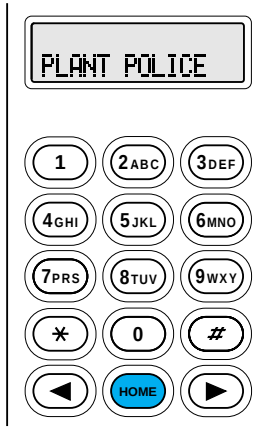


6. To place the telephone call, press the PTT button. The telephone number will be sent out; you will hear tones as they are being sent.

7. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.



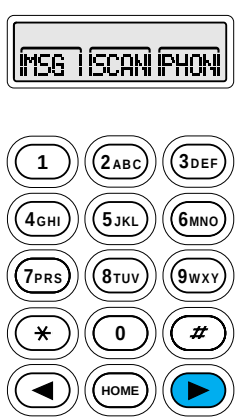
8. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Conventional Telephone Operation (cont.)

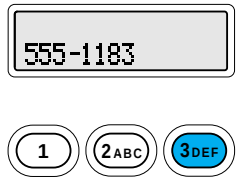
Making a Delayed Access Call to a Number at a Location in the Telephone List

1. To make a delayed access call to number at a location in the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.



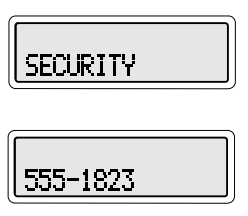
2. Press the key below "**PHON**." The display changes to show the last telephone number dialed.



3. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

4. Enter the location (any preprogrammed location from 1 through 19) of the number you wish to call.

5. The radio will go to the selected location. The display will alternate between showing the list member's name and telephone number.



Conventional Telephone Operation (cont.)

6. Press the PTT switch. The display will show "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Note: This is a timed message. If you could not access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.

7. If the access was successful, you will hear a dial tone. The display will again show the member's name.

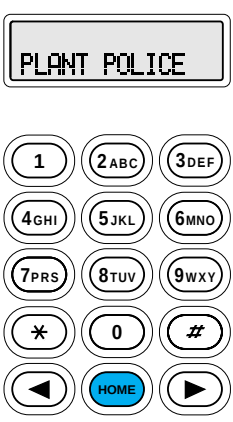
8. To place the telephone call, press the PTT button again. The telephone number will be sent out; you will hear tones as they are being sent.

9. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

   Notes:

   - After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. Press the PTT switch again to send out the extension number.
   - Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.

10. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.



Conventional Telephone Operation (cont.)

Making an Immediate Access Call to a Number at a Location in the Telephone List

1. To make an immediate access call to number at a location in the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "**PLEASE WAIT**" display shown in step 2; skip to step 3.

2. Press the key below "**PHON**." The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Note: This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.

3. If the access was successful, you will hear a dial tone. The display will show the last number dialed.

4. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

Conventional Telephone Operation (cont.)

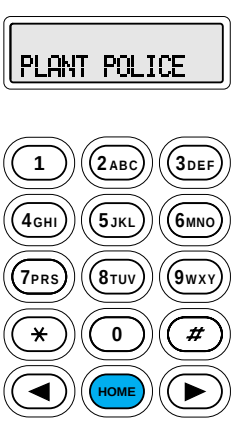
5. Enter the location (any preprogrammed location from 1 through 19) of the number you wish to call.

6. The radio will go to the selected location. The display will alternate between showing the list member's name and telephone number.

7. To place the telephone call, press the PTT button. The telephone number will be sent out; you will hear tones as they are being sent.
8. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Note:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Many conventional telephone patches will generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party as an indication to begin talking.



9. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Conventional Telephone Operation (cont.)

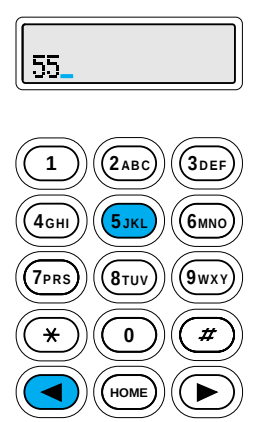
Making a Manual Access Telephone Call Using the Keypad (MTS 2000 III Model Only)

1. To make a manual access call using the keypad, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. Skip to step 3.

2. Press the key below "**PHON**." The display will show the last number dialed.

3. Enter the telephone system access code. The display shows the digits as they are being entered. Each digit is sent as its key is pressed.



4. If the access was successful, you will hear a dial tone. If you cannot access the telephone system (no dial tone heard), go to steps 7 and 8 to hang up, and start again at step 1 of this procedure.
5. Enter the telephone number. The display shows the digits as they are being entered. Each digit is sent as its key is pressed.
6. If the party you are calling answers, carry on with the conversation in the normal manner. Press the PTT switch to talk; release the PTT switch to listen.
7. When you have finished your conversation, or if the number you are calling is busy or does not answer, you must send the manual hangup code to hang up.

   Enter the hangup code. The display shows the digits as they are being entered. Each digit is sent as its key is pressed.
8. After the hangup code is sent, press the **HOME** key or the phone button to return to the home display.

Trunked Telephone Operation

The trunked telephone feature allows you to use your trunked radio similar to a standard telephone.

When you are dialing from the keypad (MTS 2000 III model only), your radio may be programmed with either *buffered dial* (you enter all digits and press the PTT before the digits are sent out) or *live dial* (each digit is sent out as it is pressed).

Note: When you are making a call, transmit operation will be controlled by the position of the two-position concentric switch. You *will be able* to change from SECURENET operation to clear operation, or from clear to SECURENET, during the call.

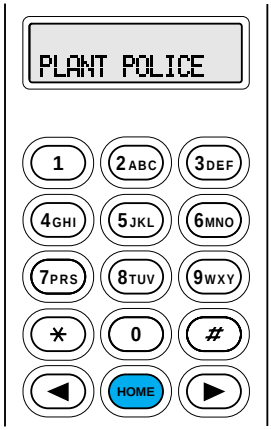
Answering a Telephone Call

1. When a telephone call is being received, you will hear telephone-type ringing. The display will alternate between showing the present talkgroup and "**PHONE CALL**," and the call received status annunciator will flash to indicate that a call is being received.

   Note: Incoming phone numbers are not stored in the phone list.

2. To answer the call, press the phone button or call response button (programmed via the RSS). The display will show "**PHONE CALL**" constantly, and the call received annunciator will turn off.

3. Carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.



4. When you have finished your conversation, press the **HOME** key or the phone button to hang up. The radio will return to the home display.

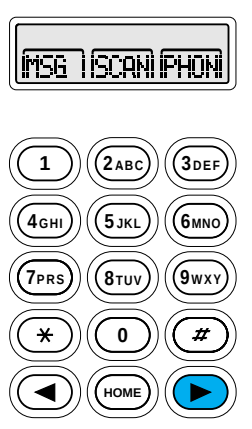
Trunked Telephone Operation (cont.)

Calling the Last Number Dialed

1. To send a telephone call to the last number dialed, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.

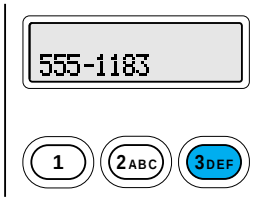
2. Press the key below "**PHON**." The display changes to show the last telephone number dialed. At this point, either:



3a. If your radio is programmed for immediate access, the display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system. Go to step 4.

Notes:

- This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key to hang up, and start again at step 1 of this procedure.
- If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHON**E" is displayed and a continuous low-pitched tone sounds.
- If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.



or

3b. If your radio is programmed for delayed access, the display does not change. Press the PTT switch. The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

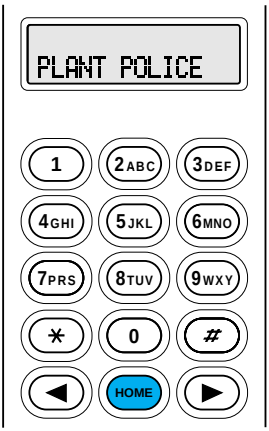
Notes:

- This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key to hang up, and start again at step 1 of this procedure.
- If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHON**E" is displayed and a continuous low-pitched tone sounds.

Trunked Telephone Operation (cont.)

- If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.

4. If the access was successful, you will hear a dial tone. The display will again show the last number dialed.
5. The telephone number will be sent out; you will hear tones as they are being sent. When the number has been completely sent out, you will hear either a busy signal or ringing. If you hear a busy signal, go to step 7 for hang-up procedure.
6. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.



Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Motorola trunked radios generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party and is an indicator to begin talking.

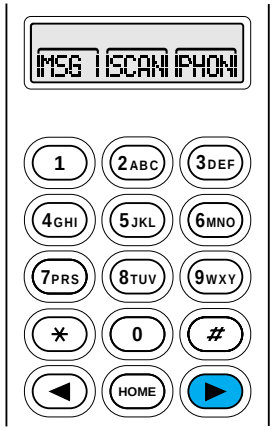
7. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Trunked Telephone Operation (cont.)

Making a Delayed Access Telephone Call Using the Keypad (MTS 2000 lll Model Only)

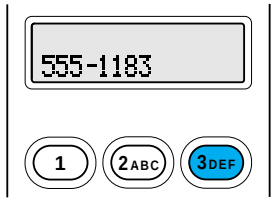
1. To make a delayed access call using the keypad, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.



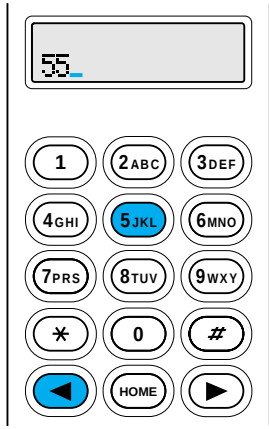
2. Press the key below "**PHON**." The display changes to show the last telephone number dialed.

   The new telephone number can now be entered from the keypad, using any of the numeric (**0** – **9**) keys, as well as the "*****" and "**#**" keys. You can also enter a pause in the telephone number by first pressing the "*****" key, then the "**#**" key. The pause will be shown on the display as a "**P**."



3. Begin entering the telephone number. The display changes to show the numbers as they are being entered. The cursor will flash to indicate the location of the next number to be entered. When the maximum number of digits have been entered, the cursor will disappear.

   Note: Once you have started entering numbers, the left arrow key (◄) will function as a backspace key. Pressing this key will erase the last digit entered, and move the cursor to the left. When the last digit on the display has been erased, an additional press of this key will cause the last member of the preprogrammed telephone list to be displayed; pressing the right arrow key will show the first member of the list.



Trunked Telephone Operation (cont.)

4. When you have finished dialing your number, press the PTT switch. The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

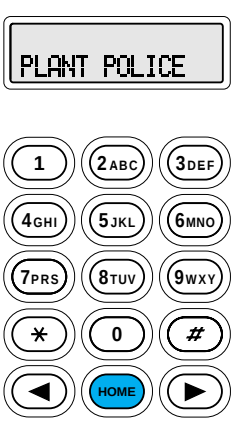
Notes:

- This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.
- If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHONE**" is displayed and a continuous low-pitched tone sounds.
- If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.

5. If the access was successful, you will hear a dial tone. The display will again show the number dialed.
6. The telephone number will be sent out; you will hear tones as they are being sent. When the number has been completely sent out, you will hear either a busy signal or ringing. If you hear a busy signal, go to step 8 for hang-up procedure.
7. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. Press the PTT switch again to send out the extension number.
- Motorola trunked radios generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party and is an indicator to begin talking.



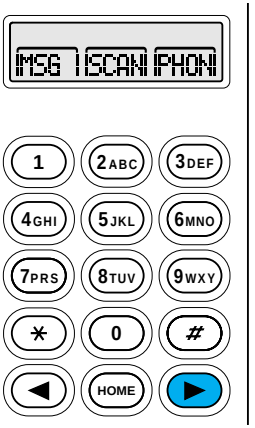
8. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Trunked Telephone Operation (cont.)

Making an Immediate Access Telephone Call Using the Keypad (MTS 2000 III Model Only)

1. To make an immediate access call using the keypad, press the right arrow key (►) until "**PHON**" appears on the display.

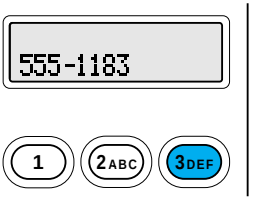
   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "**PLEASE WAIT**" display shown in step 2; skip to step 3.



2. Press the key below "**PHON**." The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Notes:

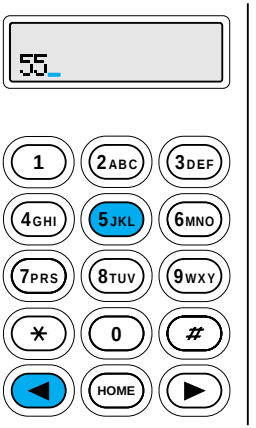
   - This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.
   - If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHON**E" is displayed and a continuous low-pitched tone sounds.
   - If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.



3. If the access was successful, you will hear a dial tone. The display will show the last number dialed.

   The new telephone number can now be entered from the keypad, using any of the numeric (**0** – **9**) keys, as well as the "*****" and "**#**" keys. You can also enter a pause in the telephone number by first pressing the "*****" key, then the "**#**" key (Buffered dial only - The pause will be shown on the display as a "**P**").

4. Enter the telephone number. The display changes to show the numbers as they are being entered. The cursor will flash to indicate the location of the next digit to be entered. When the maximum number of digits have been entered (buffered dial only), the cursor will disappear.



Trunked Telephone Operation (cont.)

5a. If your radio has been programmed by the RSS for "live dial," each digit is sent out as its key is pressed.

or

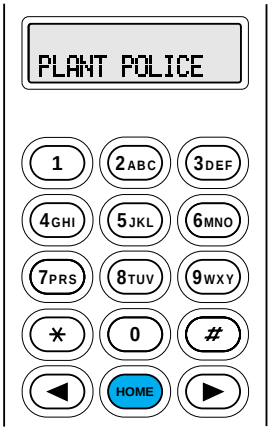
5b. If your radio has been programmed by the RSS for "buffered dial," the digits of the number are temporarily stored as you enter them. When you have completely entered the number, press the PTT switch to send out the number. The telephone number will be sent out; you will hear tones as they are being sent. If you hear a busy signal, go to step 7 for hang-up procedure.

Note: Once you have started entering numbers, the left arrow key (◄) will function as a backspace key. Pressing this key will erase the last digit entered, and move the cursor to the left. When the last digit on the display has been erased, an additional press of this key will cause the last member of the preprogrammed telephone list to be displayed; pressing the right arrow key will show the first member of the list.

6. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Motorola trunked radios generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party and is an indicator to begin talking.



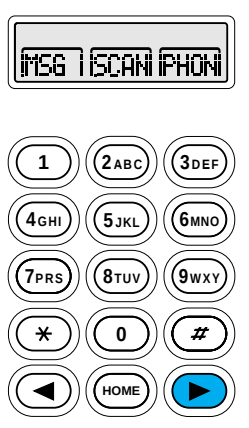
7. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Trunked Telephone Operation (cont.)

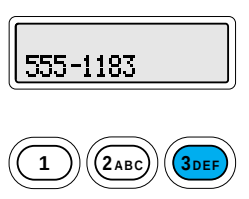
Making a Delayed Access Call to a Number on the Telephone List

1. To make a delayed access call to a number on the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

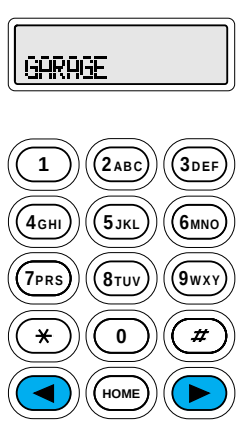
   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2; skip to step 3.



2. Press the key below "**PHON**." The display changes to show the last telephone number dialed.



3. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.



4. When you stop on a member of the list, the display will alternate between showing the member's name and telephone number.

Trunked Telephone Operation (cont.)

4. When you have selected the member you wish to call, press the PTT switch. The display will show "**PLEASE WAIT**" while your radio attempts to access the telephone system.

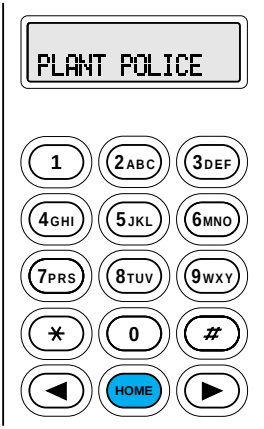
Notes:

- This is a timed message. If you could not access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.
- If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHONE**" is displayed and a continuous low-pitched tone sounds.
- If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.

5. If the access was successful, you will hear a dial tone. The display will again show the member's name.
6. The telephone number will be sent out; you will hear tones as they are being sent.
7. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. Press the PTT switch again to send out the extension number.
- Motorola trunked radios generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party and is an indicator to begin talking.



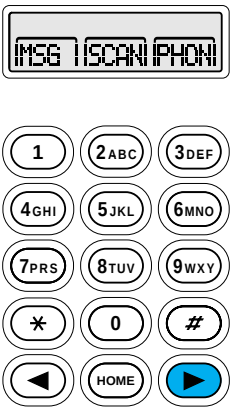
8. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Trunked Telephone Operation (cont.)

Making an Immediate Access Call to a Number on the Telephone List

1. To make an immediate access call to a number on the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

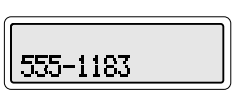
   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "**PLEASE WAIT**" display shown in step 2; skip to step 3.



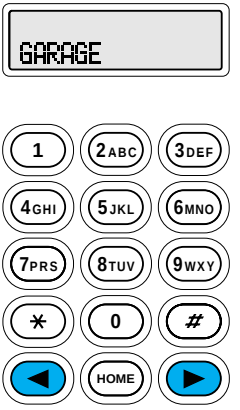
2. Press the key below "**PHON**." The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Notes:

   - This is a timed message. If you cannot access the telephone system (no dial tone heard), you will have to press the **HOME** key to hang up, and start again at step 1 of this procedure.
   - If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHON**E" is displayed and a continuous low-pitched tone sounds.
   - If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.



3. If the access was successful, you will hear a dial tone. The display will show the last number dialed.



4. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

Trunked Telephone Operation (cont.)

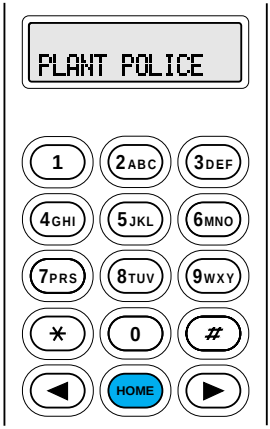
5. When you stop on a member of the list, the display will alternate between showing the member's name and telephone number.

6. To place the telephone call, press the PTT button. The telephone number will be sent out; you will hear tones as they are being sent. When the number has been completely sent out, you will hear either a busy signal or ringing, and the member's name will be displayed. If you hear a busy signal, go to step 8 to hang up.

7. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
- Motorola trunked radios generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party and is an indicator to begin talking.



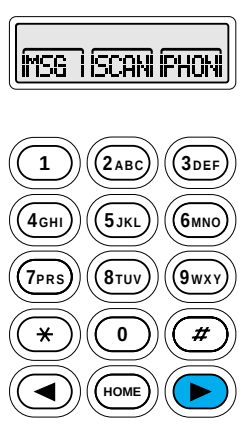
8. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Trunked Telephone Operation (cont.)

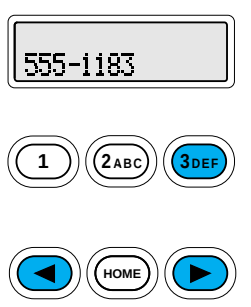
Making a Delayed Access Call to a Number at a Location in the Telephone List

1. To make a delayed access call to number at a location in the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "last number dialed" display shown in step 2.



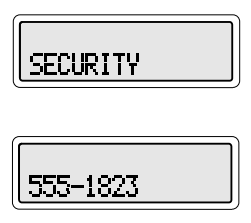
2. Press the key below "**PHON**." The display changes to show the last telephone number dialed.



3. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

4. Enter the location (any preprogrammed location from 1 through 19) of the number you wish to call.

5. The radio will go to the selected location. The display will alternate between showing the list member's name and telephone number.



Trunked Telephone Operation (cont.)

6. When you have selected the member you wish to call, press the PTT switch. The display will show "**PLEASE WAIT**" while your radio attempts to access the telephone system.

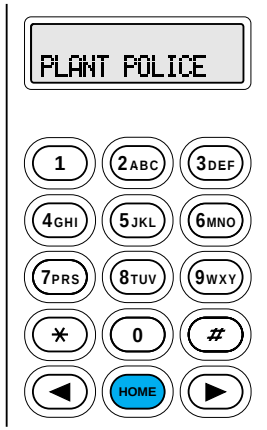
Notes:

- This is a timed message. If you could not access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.
- If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHON**E" is displayed and a continuous low-pitched tone sounds.
- If the trunked phone interconnect is in use, a busy tone sounds and "**PHONE BUSY**" is displayed. Your number will automatically be dialed when the phone interconnect becomes available. If you hang up, you will lose your place in line.

7. If the access was successful, you will hear a dial tone. The display will again show the member's name.
8. The telephone number will be sent out; you will hear tones as they are being sent.
9. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. Press the PTT switch again to send out the extension number.
- Motorola trunked radios generate a high-pitched go-ahead tone when the radio's PTT switch is released. This is heard by the land-line party and is an indicator to begin talking.



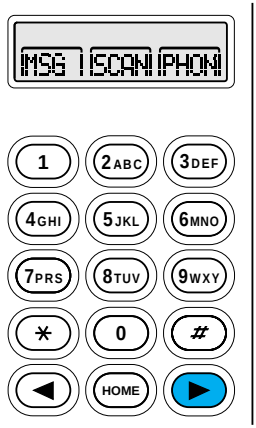
10. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Trunked Telephone Operation (cont.)

Making an Immediate Access Call to a Number at a Location in the Telephone List

1. To make an immediate access call to number at a location in the preprogrammed telephone list, press the right arrow key (►) until "**PHON**" appears on the display.

   Note: If your radio has been so programmed, you can press the phone button for quick access to the telephone call feature. This will take you directly to the "**PLEASE WAIT**" display shown in step 2.



2. Press the key below "**PHON**." The display shows "**PLEASE WAIT**" while your radio attempts to access the telephone system.

   Notes:

   - This is a timed message. If you could not access the telephone system (no dial tone heard), you will have to press the **HOME** key or the phone button to hang up, and start again at step 1 of this procedure.
   - If you are out of range of the trunked system or the phone interconnect is out of service, "**NO PHON**E" is displayed and a continuous low-pitched tone sounds.
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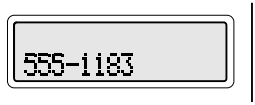
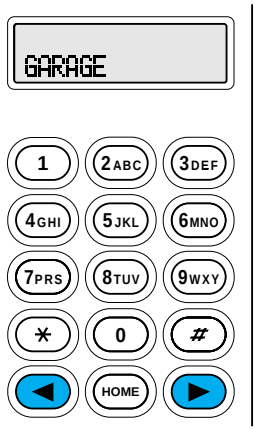


3. If the access was successful, you will hear a dial tone. The display will show the last number dialed.



4. To enter the telephone list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

Trunked Telephone Operation (cont.)

5. Enter the location (any preprogrammed location from 1 through 19) of the number you wish to call.

6. The radio will go to the selected location. The display will alternate between showing the list member's name and telephone number.

7. To place the telephone call, press the PTT button. The telephone number will be sent out; you will hear tones as they are being sent.

8. If the party you are calling answers, carry on with your conversation in the normal manner. Press the PTT switch to talk; release the PTT to listen.

Notes:

- After reaching the number you are calling, you may need to dial an extension number before you can reach your party. If this is the case, enter the extension number from the keypad (MTS 2000 III model only) or (if so programmed) use the arrow keys to find the extension number in the telephone list. If you have live dial, the number will be sent as the keys are pressed. If you have buffered dial, press the PTT switch again to send out the extension number.
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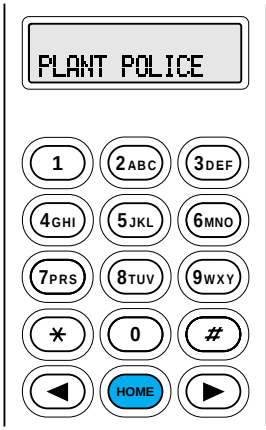


9. When you have finished your conversation, or if the number you are calling is busy or does not answer, press the **HOME** key or the phone button to send the hang-up code. The radio will return to the home display.

Stat-Alert™ (MDC-1200™) Signalling Features

Stat-Alert—Emergency

If this feature is enabled in your radio, pressing the emergency button (the orange top button) will send out an emergency alarm signal. This signal takes precedence over any other signalling activity in progress.

"Emergency" signals a critical situation. It should never be used for any other reason.

Sending an Emergency Alarm

1. Press and hold the emergency button (the length of the button press is RSS programmable) until the LED lights solid red and the display alternates between showing "EMERGENCY" and the current zone and mode. A short, medium-pitched emergency tone sounds.
2. When the alarm is acknowledged by the base, the radio sounds four beeps and the alarm ends. The radio returns to normal operation.

Sending a Silent Emergency Alarm

In radios with the silent emergency alarm option enabled, pressing the emergency button sends an emergency signal to the dispatcher. During the emergency alarm procedure: the LED will not light, tones will not be heard, and the display will not change.

The receive audio will be muted (turned off), and will remain so until you exit the emergency state. As an option, the receive audio can be enabled to allow you to hear messages.

Cancelling an Emergency Alarm

Press the emergency button for more than 1 1 / 2 seconds (programmable). A medium-pitched, emergency-exit tone sounds until the button is released and the radio returns to normal operation.

The alarm will also be cancelled (without emergency-exit tone) by:

- pressing the PTT switch,
- turning the radio off, or
- receiving an acknowledge from the dispatcher.

Stat-Alert - Emergency Hot Microphone

This feature will automatically send an emergency alarm and start the radio transmitting using either the internal microphone or the optional remote speaker microphone.

Both emergency alarm and call must be enabled. Initiate the emergency. The radio will send an alarm and begin transmitting on the specified emergency group through the internal microphone or remote speaker microphone for a pre-programmed transmit time. The radio will remain in normal emergency call after the transmit time has expired. To re-initiate the hot-microphone emergency, you must exit and re-start the emergency.

Stat-Alert—PTT-ID

Stat-Alert PTT-ID is a per-mode feature describing an identification code transmission that is tied to the PTT switch. The ID code is automatically sent every time a voice transmission occurs (that is, the PTT switch is pressed). When PTT-ID comes before the voice transmission, you will hear a tone until the ID transmission is completed; this helps you avoid talking while the ID code is being transmitted. This tone can be disabled on a per-radio basis. Also, the ID code transmission can be programmed to follow the voice transmission.

Stat-Alert—Call Alert™ (Page) (Decode)

Stat-Alert Call Alert is a per-radio feature that provides a convenient way for the dispatcher to page you through your radio. This is especially useful in noisy environments, or when you may need to be away from your radio equipment. When a Call Alert (page) is received, the radio emits a continuous series of four beeps and the LED flashes green. On the display, the call-received status annunciator (♪) flashes. The green flashing LED, alert tone, and flashing annunciator will continue until the Call Alert is acknowledged (you press the PTT, or press and release the monitor button).

Stat-Alert Call Alert (Page) (Encode)

This feature allows a radio to page another radio or group of radios with its ID.

Sending the Call Alert

To make a Call Alert, either press the “page” button or select PAGE from the menu. The last transmitted or received ID is displayed. You can select the ID you wish to page by scrolling forward with the mode selector to select an ID from the page list. You may also scroll backward with the arrow keys to show the last group ID paged, your own radio ID and your own radio group ID. If unlimited page is allowed, you may enter an ID from the keypad.

Note: Keypad entry only applies to Model III.

To transmit a page to the selected ID, either press the PTT or the select button. The radio will display “**ACKNOWLEDGE**” if received or “**NO ACKNOWLEDGE**” if the paged radio is not reached.

Receiving a Call Alert

The radio receiving the page will display “**PAGE RECEIVED”** and generate page received alert tones until the page is cancelled by any button press other than DIM. The ID of the paging radio may be viewed by entering PAGE via button or menu (Model II only).

Wildcard ID Entry

In both Selective Call and Call Alert, a * will match any number in the ID position. For example, paging ID 000* will page all IDs from 0000-0009. Paging **** will page all radios on the system.

Stat-Alert—Voice Selective-Call (Decode)

This feature provides a convenient way for a dispatcher to voice page an individual or group. Voice selective-call decode also eliminates the need for you to listen to traffic that is of no concern to you. This is a per-radio feature, enabled on a per-mode basis, and available as individual call or group call.

1. When a call is received, the green LED flashes, and a one-time, two-beep alert tone is emitted; on the display, the call-received status annunciator (♪) flashes. A voice message will follow. The green LED will continue to flash for the entire length of the message.
2. Return the radio back to voice selective-call operation by pressing the monitor button or, if so programmed, the radio will automatically reset.

   Two automatic-reset features are available for voice selective-call:

   - **Automatic Reset Without Carrier Override** — The automatic-reset timer will start after the voice selective-call code is lost or after the radio is dekeyed (you release the PTT switch).
   - **Automatic Reset With Carrier Override** — When a carrier is detected, the automatic reset timer will stop; when the carrier is lost, the automatic-reset timer will start over.

   Note: Voice selective-call automatic reset is cancelled when the monitor button is pressed or when the mode is changed. The automatic-reset timer is started over if it was running when either a voice selective-call was decoded or a successful transmission was initiated.

Stat-Alert—Radio Check

This feature allows the dispatcher to determine if a radio unit is on the air without disturbing the radio operator. This is a useful tool for the radio dispatcher to use for routine maintenance checks, or if there is reason to doubt the availability of a radio unit. When the dispatcher "checks" for the radio, the radio will receive the command and automatically acknowledge it. The transmit (red) LED will light when the radio sends the acknowledgement.

Stat-Alert Selective Call

Selective Call is another method of unmuting a radio with other than PL codes. Radios with Selective Call may be programmed to unmute one of two ways:

1. (OR muting option) upon receiving proper PL code or a Selective Call, or
2. (AND muting option) upon receiving both proper PL code and Selective Call

Making a Selective Call

Either press the “call” button or select PRIVATE CALL from the menu. The last transmitted or received ID is displayed. You can select the ID you wish to call by scrolling forward with the arrow keys to select an ID from the call list. You may also scroll backward with the arrow keys to show the last group ID called, your own radio ID and your own radio group ID. If unlimited calling is allowed, you may enter an ID from the keypad.

Note: Keypad entry only applies to Model III.

To transmit a call to the selected ID, press the PTT. If automatic Selective Call is enabled, your radio will remain in Selective Call until you exit. If automatic Selective Call is disabled in your radio, the radio will immediately exit Selective Call when you release the PTT.

Receiving a Selective Call

When receiving a selective call, your radio will generate the call received tone and display “**CALL RECEIVED**” momentarily. The Selective Call voice will then be heard.

If OR muting is programmed into your radio, your radio will unmute whenever it receives proper PL or a Selective Call.

If AND muting is programmed into your radio, your radio must receive proper PL and a Selective Call to unmute. For a pre-programmed time after receiving a Selective Call, your radio will unmute on proper PL. After this pre-programmed time, another Selective Call with proper PL will be required to unmute the radio.

Repeat / Direct

The repeat / direct feature allows you to bypass the repeater and talk directly to another portable radio. This is known as DIRECT operation. The transmit frequency is the same as the receive frequency.

- In REPEAT operation, you talk through the repeater, which increases the radio's operating range. The transmit frequency is not the same as the receive frequency.
- If the repeat / direct feature is slaved to a mode, that mode is programmed to either one or the other type of operation (direct or repeat).
- If the repeat / direct feature is programmed, through the RSS, to the three-position toggle switch, one position on the switch will select repeat operation, and another position will select direct operation.
- If the repeat / direct feature is programmed, by the RSS, to the keypad, change the repeat / direct setting by doing the following:

  1. Press the right arrow (►) key until “DIR” appears on the display.
  2. Press the key below “DIR.” The current talkaround state (“REPEATER MODE” or “DIRECT MODE”) appears on the display for a few seconds. Then, the display shows “RPTR” and “DIR.”
  3. Press the key below the desired talkaround state (RPTR or DIR). The radio automatically returns to the home display.

Smart PTT

Smart PTT is a per-mode feature which gives the system manager better control of radio operators. When smart PTT is enabled in your radio, you will not be able to transmit on an active mode. Also, the monitor function will be disabled on modes programmed with smart PTT. Three radio-wide variations of smart PTT are available:

- **Transmit Inhibit on Busy Mode**—With this feature enabled, you will be inhibited from transmitting if any activity is detected on the mode.
- **Transmit Inhibit on Busy Mode with Wrong Squelch Code**—With this feature enabled, you will be inhibited from transmitting on an active mode with a squelch code or (if SECURENET-equipped) encryption key other than your own. If the PL or encryption code is the same as yours, the transmission will not be inhibited.
- **Quick-Key Override**—This feature can work in conjunction with either of the two above variations. With this feature enabled, you will be able to override the transmit-inhibit state by quick-keying (two PTT presses within one second of each other) the radio.

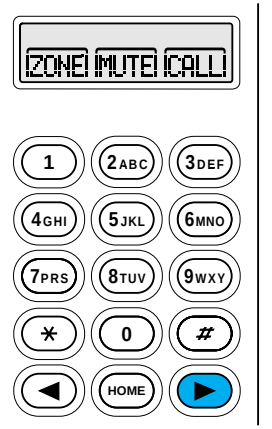
Smart PTT radio operation is exactly the same as standard radio operation, except that, if you try to transmit (press the PTT) on a smart PTT mode, a continuous alert tone is generated until the PTT is released; the transmission will be inhibited.

The red LED will blink when the radio is receiving to indicate that the mode is busy.

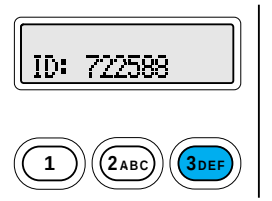
Viewing Your Radio's ID Number

1. To view your radio's ID number, press the right arrow key (►) until "**CALL**" appears on the display.

   Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

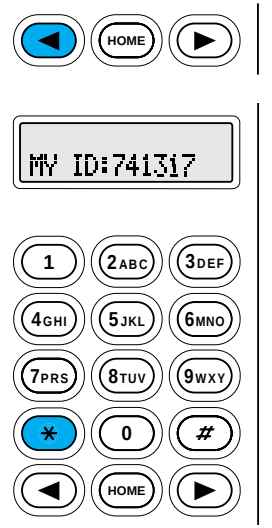


2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received.



3. Press the left (◄) arrow key to view "**MY ID:**" or, if already in the preprogrammed call list, press the "*****" key. The display will show "**MY ID:**" along with your radio's ID number.

   Note: Pressing the right (►) arrow key will take you to the last ID number transmitted or received. Pressing the left (◄) arrow key will take you to the last member in the list.



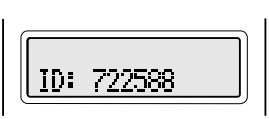
4. Press the **HOME** key to return the radio to the home display.

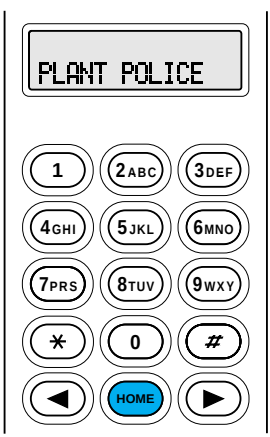
Trunked Enhanced Private Conversation™ Call Operation

The Enhanced Private Conversation feature not only allows you to carry on a conversation that is heard only by the two parties involved, but also enables you to determine whether the radio that you are calling is in service. The radio being called can also view the calling radio's ID number before answering. You can then choose whether or not to leave your radio's ID number (via a Call Alert page) with the radio you are calling so that you may be called back. Enhanced Private Conversation operation is similar to telephone operation.

Note: When you are making a call, transmit operation will be controlled by the position of the two-position concentric switch. You *will be able* to change from SECURENET operation to clear operation, *but not* from clear to SECURENET, during the call.

Answering a Private Conversation Call





1. When your radio receives a Private Conversation call, you will hear two alert tones (repeating every five seconds for 20 seconds), and the display will alternate between "**CALL RECEIVED**" and the home display. The green LED and call received status annunciator will flash to indicate that a call is being received. You will have 20 seconds to answer the call before the radio automatically returns to the home display.
2. Press the call response button or the call button (both programmed through the RSS). The display will show the incoming caller's ID number, and the call received annunciator will turn off. After viewing the caller's ID number, you can decide to either talk privately (go to step 3), or not answer the call by letting the remainder of the 20 seconds elapse and returning to the home display.

   Note: If you press the PTT switch before you press the call response button, the response will be transmitted to everyone in the talkgroup (see dispatch mode operation).
3. If you decide to answer the call, press the PTT switch to carry on a Private Conversation with the caller. The caller's ID number will remain on the display for the duration of the call.
4. When you have finished your conversation, press the **HOME** key or the call response button to hang up; the radio will return to the home display.

Trunked Enhanced Private Conversation™ Call Operation

Viewing and Storing the Incoming ID Number Without Responding to the Private Conversation

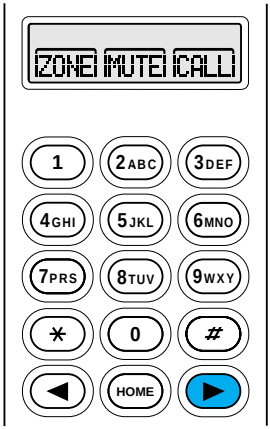
1. When your radio receives a Private Conversation call, you will hear two alert tones (repeating every five seconds for 20 seconds). The display will alternate between showing the current mode and "**CALL RECEIVED**." The green LED and the call received status annunciator will flash to indicate that a call is being received. You will have 20 seconds to answer the call.

   Note: If you do not answer the call within 20 seconds, the radio will automatically return to the home display.

2. Press the call response button or the call button (both programmed through the RSS). The display will show the incoming caller's ID number, and the call received annunciator will turn off. Converse...press PTT to transmit and release PTT to receive.

3. When you have finished your conversation, press the **HOME** key. The caller's ID number will be stored and the radio will return to the home display.

   Note: The stored ID number is now the "last ID number received."

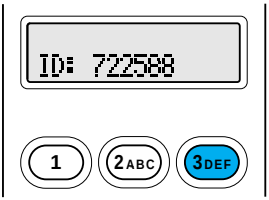


Trunked Enhanced Private Conversation™ Call Operation

Enhanced Calling the Last ID Number Transmitted or Received

1. To call the last ID number transmitted or received, press the right arrow key (►) until "**CALL**" appears on the display.

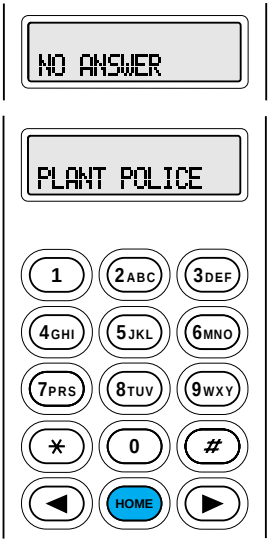
   Note: Alternatively press the call encode button if the radio is so programmed.



2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received.

3. Press the PTT switch; the ID number is transmitted. If the radio you are calling is on the air, you will hear telephone-type ringing for 20 seconds, or until the called radio answers the call.

   Note: If the radio you are calling *is not in service*, you will not hear the ringing and the display will show "**NO ACK**". Go to step 6 to hang up.



4a. If the party you are calling *does not answer* the call within twenty seconds, the display will show **"NO ANSWER"**; the telephone ringing will stop and an alert tone will sound. At this point you can either send a Call Alert™ page (go to step 1 of "Leaving a Call Alert Page When the Called Party Does Not Answer the Private Conversation Call"), or go to step 6 of this procedure to hang up.

or

4b. If the party you are calling *does answer* the call, you will hear his / her voice.

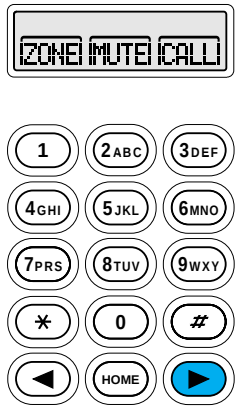
5. Press the PTT switch to carry on a Private Conversation with the called person.

6. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

Trunked Enhanced Private Conversation™ Call Operation

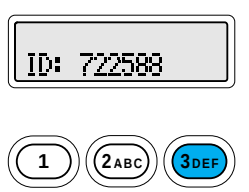
Direct Entry of the ID Number to be Called

1. To directly enter the ID number to be called, press the right arrow key (►) until "**CALL**" appears on the display.



Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

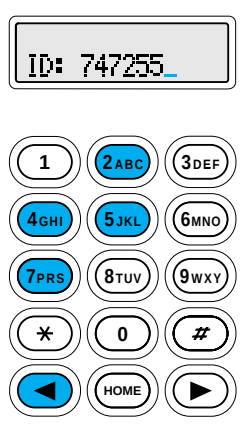
2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received. You can now enter the ID number to be called.



3. Enter the new six-digit ID number from the keypad. On the display, the old ID number disappears and the new digits appear as they are being entered. The cursor flashes to indicate the location of the next number to be entered.

Notes:

- If fewer than six digits are entered and the PTT switch is pressed, you will hear a bad-keypress tone and the display will show "**INVALID ENTRY**". A bad-keypress tone will also be heard if you try to enter a seventh digit.
- Once you have started entering numbers, the left arrow (◄) key will function as a backspace key. Pressing this key will cause the last digit entered to be erased, and the cursor to move to the left. When the last digit has been erased, an additional press of this key will cause the last member of the preprogrammed Private Conversation list to be displayed; Pressing the right arrow key will show the first member of the list.



Trunked Enhanced Private Conversation™ Call Operation

4. Press the PTT switch; the new ID number is transmitted. If the radio you are calling is on the air, you will hear a telephone-type ringing for 20 seconds, or until the called radio answers the call.

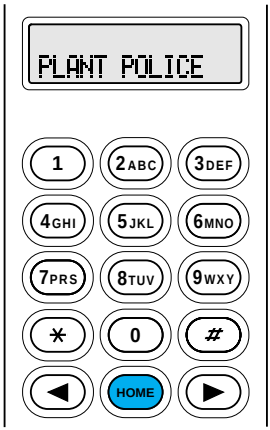
   Note: If the radio you are calling *is not in service*, you will not hear the ringing and the display will show "**NO ACK**". Go to step 7 to hang up.

5a. If the party you are calling *does not answer* the call within twenty seconds, the display will show **"NO ANSWER"**; the telephone ringing will stop and an alert tone will sound. At this point you can either send a Call Alert™ page (go to step 1 of "Leaving a Call Alert Page When the Called Party Does Not Answer the Private Conversation Call"), or go to step 7 of this procedure to hang up.

or

5b. If the party you are calling *does answer* the call, you will hear his / her voice.

6. Press the PTT switch to carry on a Private Conversation with the called person.



7. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

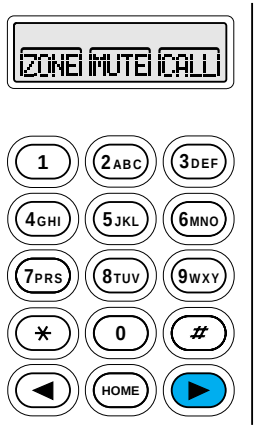
Trunked Enhanced Private Conversation™ Call Operation

Scrolling to an ID Number in the Call List

1. To scroll to an ID number to be called from the preprogrammed call list, press the right arrow key (►) until "**CALL**" appears on the display.

   Note: The same list is shared by both Private Conversation and Call Alert features.

   Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.



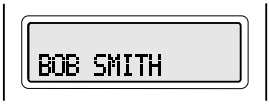
2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received. You can now select an ID number from the list.

3. To enter the list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

   Note: The last member of the list will be the "last ID transmitted or received." This member can also be found at location "OO" in the list (see "Calling an ID Number at a Location in the Call List").

4. When you stop on a member of the list, the display will alternate between showing the member's name and ID number.

Trunked Enhanced Private Conversation™ Call Operation



5. When you have selected the member you wish to call, press the PTT switch. The display freezes to show the selected member's name, and the member's ID number is transmitted. If the radio you are calling is on the air, you will hear a telephone-type ringing for 20 seconds, or until the called radio answers the call.

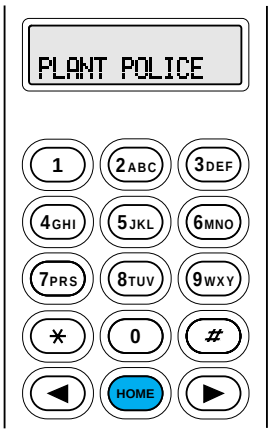
   Note: If the radio you are calling *is not in service*, you will not hear the ringing and the display will show "**NO ACK**". Go to step 8 to hang up.

6a. If the party you are calling *does not answer* the call within twenty seconds, the display will show **"NO ANSWER"**; the telephone ringing will stop and an alert tone will sound. At this point you can either send a Call Alert™ page (go to step 1 of "Leaving a Call Alert Page When the Called Party Does Not Answer the Private Conversation Call"), or go to step 8 of this procedure to hang up.

or

6b. If the party you are calling *does answer* the call, you will hear his / her voice.

7. Press the PTT switch to carry on a Private Conversation with the called person.

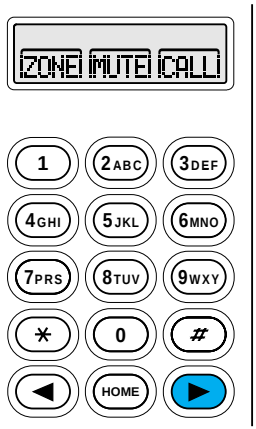


8. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

Trunked Enhanced Private Conversation™ Call Operation

Calling an ID Number at a Location in the Call List

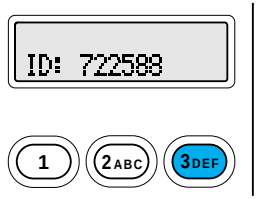
1. You can also private call an ID number at a particular location in the preprogrammed call list (for example, the fifth location in the list would be position "5"). To do this, press the right arrow key (►) until "**CALL**" appears on the display.



Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

Note: The same list is shared by both Private Conversation and Call Alert features.

2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received. You can now select an ID number from the list.



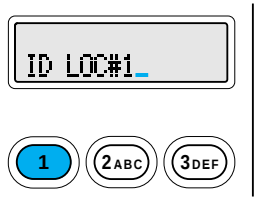
3. Enter the list by pressing either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

Note: The last member of the list will also be the "last ID transmitted or received" at position "OO" in the list.

4. Enter the first digit of the location number.

   a. If there are fewer than 10 members in the list, the radio goes immediately to that position in the list, and the display alternates between showing that list member's name and ID number. Go directly to step 7.

   b. If there are 10 or more members in the list, the display changes to show "**ID LOC#X_**" (where X is the first digit). The cursor will flash to show the location of the second digit. Continue with step 5.



Trunked Enhanced Private Conversation™ Call Operation

5. Enter the second digit of the location number.

6. Then, the radio goes to that position in the list, and the display alternates between showing that list member's name and ID number.

Note: If you enter a location number that does not exist (for example, "24"), the display will show "**INVALID ENTRY**," and the radio will sound an invalid-keypress tone and return back to step 4 of this procedure. Continue from this point.

7. To make the call, press the PTT switch. The display freezes to show the selected member's name, and the member's ID number is transmitted. If the radio you are calling is on the air, you will hear a telephone-type ringing for 20 seconds, or until the called radio answers the call.

Note: If the radio you are calling *is not in service*, you will not hear the ringing and the display will show "**NO ACK**." Go to step 10 to hang up.

8a. If the party you are calling *does not answer* the call within twenty seconds, the display will show **"NO ANSWER"**; the telephone ringing will stop and an alert tone will sound. At this point you can either send a Call Alert™ page (go to step 1 of "Leaving a Call Alert Page When the Called Party Does Not Answer the Private Conversation Call"), or go to step 10 of this procedure to hang up.

or

8b. If the party you are calling *does answer* the call, you will hear his / her voice.

9. Press the PTT switch to carry on a Private Conversation with the called person.

10. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

Trunked Enhanced Private Conversation™ Call Operation

Leaving a Call Alert Page When the Called Party Does Not Answer the Private Conversation Call

1. If the party you are private calling *does not answer* the call within twenty seconds, the display will show **"NO ANSWER"**; the telephone ringing will stop and an alert tone will sound. At this point you can send a Call Alert™ page to the party you are calling. This will leave your radio's ID number with the called radio so that you can be called back later.

2. Press the PTT switch to send the Call Alert page. You will hear five beeps, indicating that the system has received your ID number and the radio you are calling is on the air.
3. Press the **HOME** key and the radio will return to the home display

Note: Once engaged in a private conversation, if the radio is left idle for more than one minute, a momentary warning alert will sound every six seconds to remind you that dispatch calls are not being heard. After two minutes, a permanent invalid mode tone will be heard.

Trunked Private Conversation™ I and II Call Operation

The Private Conversation feature allows you to carry on a conversation that is heard only by the two parties involved. With Private Conversation, the radio being called can also view the calling radio's ID number before answering.

Note: When you are making a call, transmit operation will be controlled by the position of the two-position concentric switch. You *will be able* to change from SECURENET operation to clear operation, *but not* from clear to SECURENET, during the call.

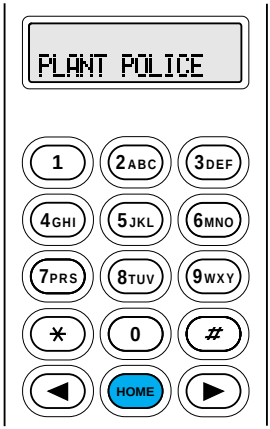
Answering a Private Conversation Call

1. When your radio receives a Private Conversation call, you will hear two alert tones, the display will show "**CALL RECEIVED**", and you will hear the caller.

2. Press the call response button or the call button (both programmed through the RSS). The display will show the incoming caller's ID number or "**RECEIVED ID**", and the call received annunciator will turn off. After viewing the caller's ID number, you can decide to either talk privately (go to step 3), or not answer the call.

   Note: If you press the PTT switch before you press the call response button, the response will be transmitted to everyone in the talkgroup (see dispatch mode operation).

3. If you decide to answer the call, press the PTT switch to carry on a Private Conversation with the caller. The caller's ID number will remain on the display for the duration of the call.



   Note: If the system is busy when you attempt to answer the call, a busy tone sounds. When a mode becomes available, you will receive a call back tone and your radio automatically keys up for three seconds so that you can begin talking.

4. When you have finished your conversation, press the **HOME** key to hang up; the radio will return to the home display.

Trunked Private Conversation™ I and II Call Operation

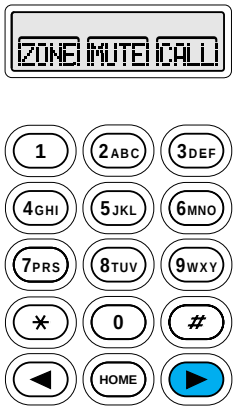
Viewing and Storing the Incoming ID Number Without Responding to the Call

1. When your radio receives a Private Conversation call, you will hear two alert tones. The display will show "**CALL RECEIVED**" for two seconds. The green LED and the call received status annunciator will flash to indicate that a call is being received.

2. Press the call response button or the call button (both programmed through the RSS). The display will show the incoming caller's ID number or "**RECEIVED ID**", and the call received annunciator will turn off.

3. Press the call response button again. The caller's ID number will be stored and the radio will return to the home display.

   Note: The stored ID number is now the "last ID number received."

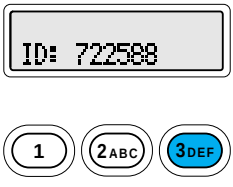


Trunked Private Conversation™ I and II Call Operation

Calling the Last ID Number Transmitted or Received

1. To call the last ID number transmitted or received, press the right arrow key (►) until "**CALL**" appears on the display.

   Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.



2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received.

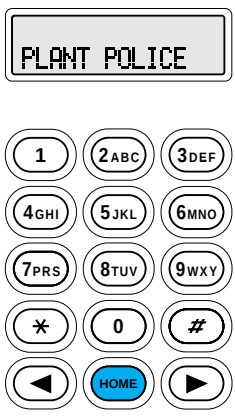
3. Pause for a second to allow the alert tone to sound in the receiving radio, then begin talking.

4a. If the party you are calling *does not respond*, then press the **HOME** key to exit the Private Conversation feature. You may then enter the Call Alert feature to leave a permanent page with the radio.

or

4b. If the party you are calling *does answer* the call, you will hear his / her voice.

5. Press the PTT switch to carry on a Private Conversation with the called person.

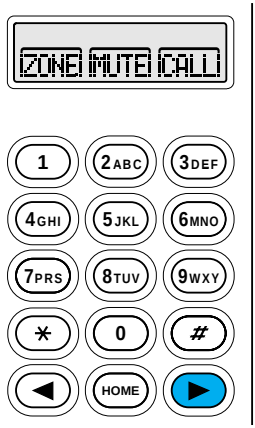


6. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

Trunked Private Conversation™ I and II Call Operation

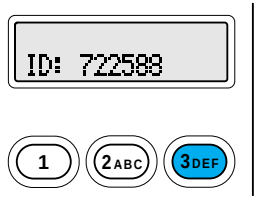
Direct Entry of the ID Number to be Called

1. To directly enter the ID number to be called, press the right arrow key (►) until "**CALL**" appears on the display.

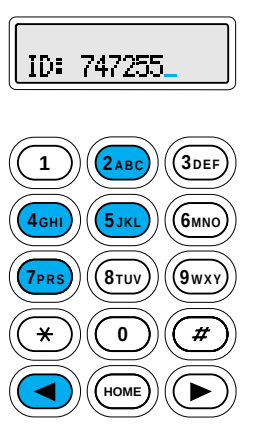


Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received. You can now enter the ID number to be called.



3. Enter the new six-digit ID number from the keypad. On the display, the old ID number disappears and the new digits appear as they are being entered. The cursor flashes to indicate the location of the next number to be entered.



Notes:

- If fewer than six digits are entered and the PTT switch is pressed, you will hear a bad-keypress tone. A bad-keypress tone will also be heard if you try to enter a seventh digit.
- Once you have started entering numbers, the left arrow (◄) key will function as a backspace key. Pressing this key will cause the last digit entered to be erased, and the cursor to move to the left. When the last digit has been erased, an additional press of this key will cause the last member of the preprogrammed Private Conversation list to be displayed; Pressing the right arrow key will show the first member of the list.

Trunked Private Conversation™ I and II Call Operation

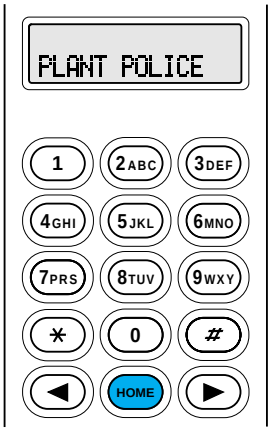
4. Press the PTT switch. Pause for a second to allow the alert tone to sound in the receiving radio, then begin talking.

5a. If the party you are calling *does not respond*, then press the **HOME** key to exit the Private Conversation feature. You may then enter the Call Alert feature to leave a permanent page with the radio.

or

5b. If the party you are calling *does answer* the call, you will hear his / her voice.

6. Press the PTT switch to carry on a Private Conversation with the called person.

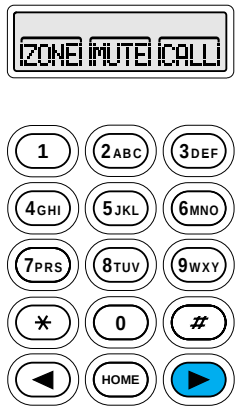


7. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

Trunked Private Conversation™ I and II Call Operation

Scrolling to an ID Number in the Call List

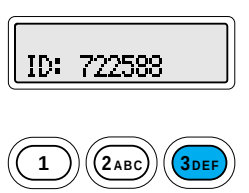
1. To scroll to an ID number to be called from the preprogrammed call list, press the right arrow key (►) until "**CALL**" appears on the display.



Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

Note: The same list is shared by both Private Conversation and Call Alert features.

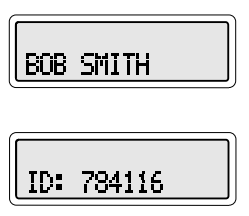
2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received. You can now select an ID number from the list.



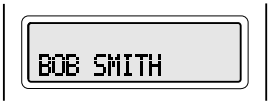
3. To enter the list, press either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

Note: The last member of the list will be the "last ID transmitted or received." This member can also be found at location "OO" in the list (see "Calling an ID Number at a Location in the Call List").

4. When you stop on a member of the list, the display will alternate between showing the member's name and ID number.



Trunked Private Conversation™ I and II Call Operation



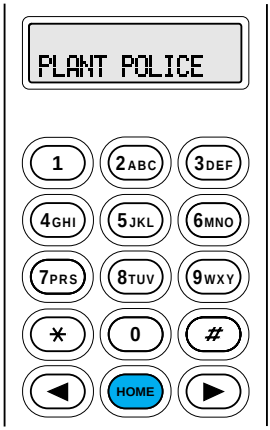
5. When you have selected the member you wish to call, press the PTT switch. The display freezes to show the selected member's name, and the member's ID number is transmitted. Pause for a second to allow the alert tone to sound in the receiving radio, then begin talking.

6a. If the party you are calling *does not respond*, then press the **HOME** key to exit the Private Conversation feature. You may then enter the Call Alert feature to leave a permanent page with the radio.

or

6b. If the party you are calling *does answer* the call, you will hear his / her voice.

7. Press the PTT switch to carry on a Private Conversation with the called person.



8. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

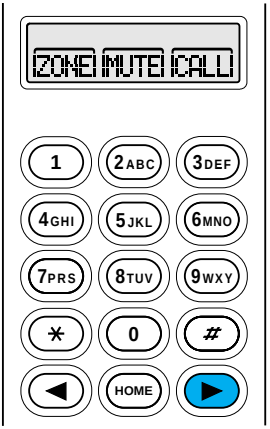
Trunked Private Conversation™ I and II Call Operation

Calling an ID Number at a Location in the Call List

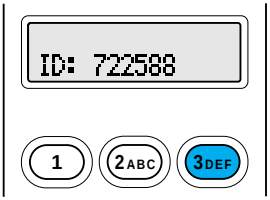
1. You can also call an ID number at a particular location in the preprogrammed call list (for example, the fifth location in the list would be position "5"). To do this, press the right arrow key (►) until "**CALL**" appears on the display.

   Note: If your radio has been so programmed, you can press the call button for quick access to the Private Conversation feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

   Note: The same list is shared by both Private Conversation and Call Alert features.



2. Press the key below "**CALL**." The display changes to show the last ID number transmitted or received. You can now select an ID number from the list.

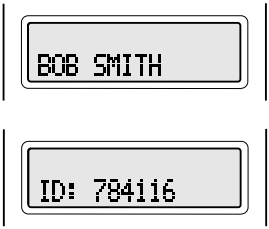


3. Enter the list by pressing either the right (►) or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

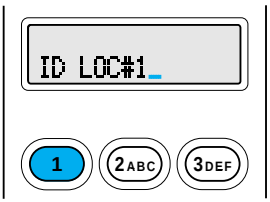
   Note: The last member of the list will also be the "last ID transmitted or received" at position "OO" in the list.

4. Enter the first digit of the location number.

   a. If there are fewer than 10 members in the list, the radio goes immediately to that position in the list, and the display alternates between showing that list member's name and ID number. Go directly to step 7.



   b. If there are 10 or more members in the list, the display changes to show "**ID LOC#X**_" (where X is the first digit). The cursor will flash to show the location of the second digit. Continue with step 5.



Trunked Private Conversation™ I and II Call Operation

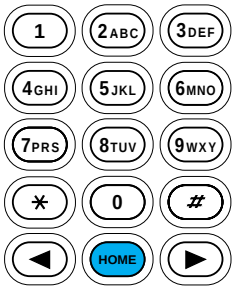
5. Enter the second digit of the location number.

6. Then, the radio goes to that position in the list, and the display alternates between showing that list member's name and ID number.

Note: If you enter a location number that does not exist (for example, "24"), the display will show "**INVALID ENTRY**," and the radio will sound an invalid-keypress tone and return back to step 4 of this procedure. Continue from this point.

7. To make the call, press the PTT switch. The display freezes to show the selected member's name, and the member's ID number is transmitted. Pause for a second to allow the alert tone to sound in the receiving radio, then begin talking.

8a. If the party you are calling *does not respond*, then press the **HOME** key to exit the Private Conversation feature. You may then enter the Call Alert feature to leave a permanent page with the radio.



or

8b. If the party you are calling *does answer* the call, you will hear his / her voice.

9. Press the PTT switch to carry on a Private Conversation with the called person.

10. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key to hang up; the radio will return to the home display.

Call Alert™ Page Operation

The Call Alert page feature lets your radio function like a pager (beeper). Depending upon how it is programmed by the RSS, the radio can receive and respond to pages from other radios, and send pages to them.

Answering a Call Alert Page

1. When a Call Alert page is being received, you will hear a recurring four-beep tone until you answer the call or reset the radio. The display will alternate between showing the current talkgroup and "**PAGE RECEIVED**." The green LED and the call received status annunciator will flash.

   Note: Any button press, keypad press, or mode change will turn the Call Alert audible and visual indicators off.

2. To answer the page, press the PTT switch. The display will show the current talkgroup constantly; the audible alert and the LED and call received annunciator will turn off. The ID number of the radio that paged you is stored as "the last ID number received."

3. Carry on with your conversation in the normal manner; all members of your talkgroup will hear your response. Press the PTT switch to talk; release the switch to listen.

Call Alert Page Operation (cont.)

Answering a Call Alert Page With an Enhanced Private Conversation Call (900 MHz Only)

1. When a Call Alert page is being received, you will hear a recurring four-beep tone until the call is answered or the radio is reset. The display will alternate between showing the current talkgroup and "**PAGE RECEIVED**." The green LED and the call received status annunciator will flash to indicate that a page is being received.

   Note: Any button press, keypad press, or mode change except for the light button or volume control will turn the Call Alert audible and visual indicators off.

2. Press the call response button or the call button (both programmed via the RSS), or press the right arrow key until the display shows "**CALL**," then press the key below "**CALL**." The display will show the ID number of the radio that paged you.

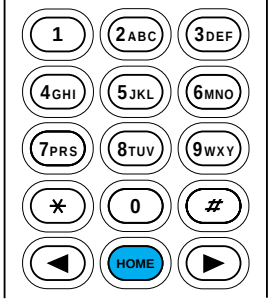
3. Press the PTT switch to transmit the ID number. If the radio you are calling is on the air, you will hear telephone-type ringing for 20 seconds, or until the radio you are calling answers the call. The ID number of the calling radio is stored as the "last ID number transmitted or received."

   Note: If the radio you are calling *is not in service*, you will not hear the ringing. Go to step 6 of this procedure to hang up.

4a. If the party you are calling *does not answer* the call within 20 seconds, the display will show "**NO ACKNOWLEDGE**"; the ringing will stop and an alert tone will sound. Go to step 6 of this procedure to hang up.

or

4b. If the party you are calling *does answer* the call, you will hear his / her voice.



5. Press the PTT switch to carry on a Private Conversation will the called person

6. When you have finished your conversation, or if the radio you are calling does not answer or is not in service, press the **HOME** key or the page button (normally side button 2) to hang up. The radio will return to the home display.

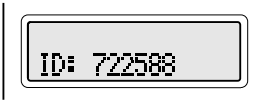
Call Alert Page Operation (cont.)

Answering a Call Alert Page With a Private Conversation II Call (800 MHz Only)

1. When a Call Alert page is being received, you will hear a recurring four-beep tone until the call is answered or the radio is reset. The display will alternate between showing the current talkgroup and "**PAGE RECEIVED**." The green LED and the call received status annunciator will flash to indicate that a page is being received.

Note: Any button press, keypad press, or mode change (except for the light button or volume control) will turn the Call Alert audible and visual indicators off.

2. Press the call response button or the call button (both programmed via the RSS), or press the right arrow key until the display shows "**CALL**," then press the key below "**CALL**." The display will show the ID number of the radio that paged you.



3. Press the PTT switch to transmit the ID number. The ID number of the calling radio is stored as the "last ID number received."

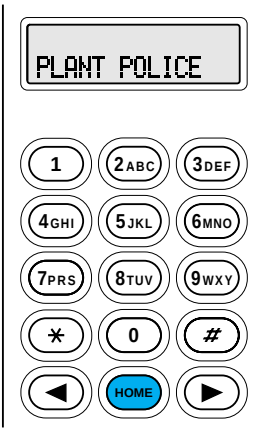
4a. If the party you are calling *does not answer* the call, go to step 6 of this procedure to hang up.

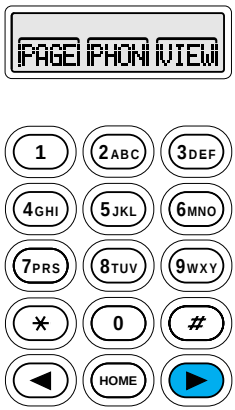
or

4b. If the party you are calling *does answer* the call, you will hear his / her voice.

5. Press the PTT switch to carry on a Private Conversation with the called person.

6. When you have finished your conversation, or if the radio you are calling does not answer, press the **HOME** key or the page button to hang up. The radio will return to the home display.



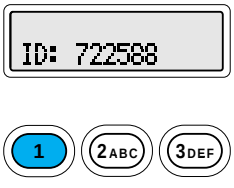


Call Alert Page Operation (cont.)

Sending a Call Alert to the Last ID Number Transmitted or Received

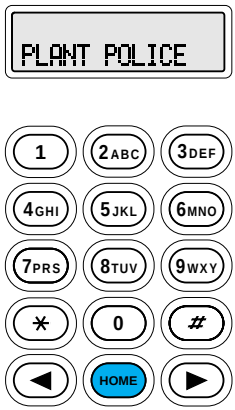
1. To send a Call Alert to the last ID number transmitted or received, press the right arrow key (►) until "**PAGE**" appears on the display

   Note: If your radio has been so programmed, you can press the page button for quick access to the Call Alert feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.



2. Press the key below "**PAGE**." The display shows the last ID number transmitted or received.

3. Press the PTT switch to send the ID number.



4a. *If you hear one beep*, the ID number has been received by the system, but the radio you are paging is not on the air; your radio remains in the Call Alert mode. You can either go back to step 3 and press the PTT switch to send the ID number again, or press the **HOME** key to hang up and return to the home display.

Note: If after six seconds the called radio fails to acknowledge the alert, a low-pitched alert tone sounds and the display changes to "**NO ACKNOWLEDGE**". Try again or press the **HOME** key to exit

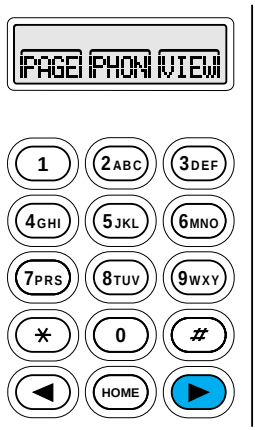
or

4b. *If you hear five beeps*, the ID number has been received by the system, and the radio you are paging is on the air and has received your page. The radio automatically returns to the home display.

Call Alert Page Operation (cont.)

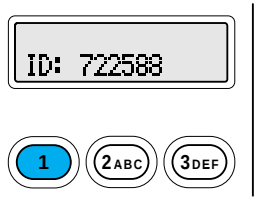
Direct Entry of the ID Number to be Call Alert Paged

1. To directly enter the ID number to be Call Alert paged, press the right arrow key (►) until "**PAGE**" appears on the display.



Note: If your radio has been so programmed, you can press the page button for quick access to the Call Alert feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.

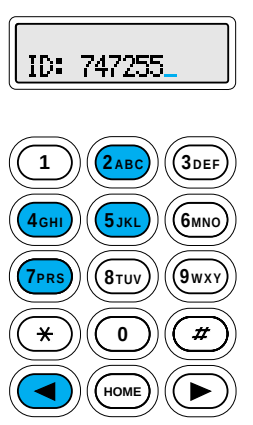
2. Press the key below "**PAGE**.**"** The display changes to show the last ID number transmitted or received. You can now enter the ID number to be paged.



3. Enter the new six-digit ID number from the keypad. On the display, the old ID number disappears and the new digits appear as they are being entered. The cursor flashes to indicate the location of the next number to be entered.

Notes:

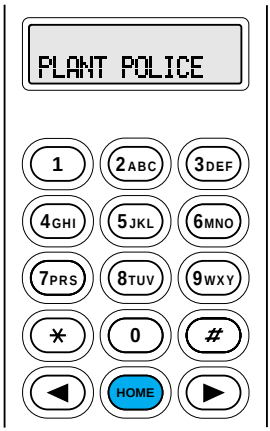
- If fewer than six digits are entered and the PTT switch is pressed, you will hear a bad-keypress tone. A bad-keypress tone will also be heard if you try to enter a seventh digit.
- Once you have started entering numbers, the left arrow key (◄) will function as a backspace key. Pressing this key will cause the last digit entered to be erased, and the cursor to move to the left. When the last digit has been erased, an additional press of this key will cause the last member of the preprogrammed call list to be displayed; pressing the right arrow key will show the first member of the list.



Call Alert Page Operation (cont.)

4. Press the PTT switch to send the ID number.

Note: If the ID number you are trying to send is not a valid ID number for the system, the display will show "**INVALID ENTR**Y" for a few seconds, then the radio will go back to the beginning of step 3 again.



5a. *If you hear one beep*, the ID number has been received by the system, but the radio you are paging is not on the air; your radio remains in the Call Alert mode. You can either go back to step 4 and press the PTT switch to send the ID number again, or press the **HOME** key to hang up and return to the home display.

Note: If after six seconds the called radio fails to acknowledge the alert, a low-pitched alert tone sounds and the display changes to "**NO ACKNOWLEDGE**". Try again or press the **HOME** key to exit

or

5b. *If you hear five beeps*, the ID number has been received by the system, and the radio you are paging is on the air and has received your page. The radio automatically returns to the home display.

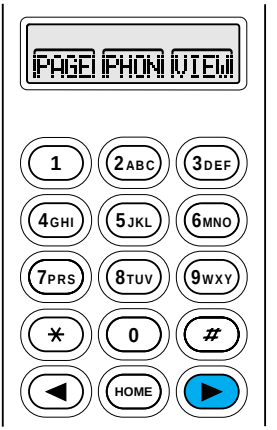
Call Alert Page Operation (cont.)

Scrolling to an ID Number in the Call List

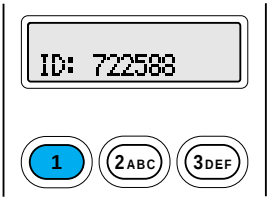
1. To scroll to an ID number to be Call Alert paged from the preprogrammed call list, press the right arrow key (►) until "**PAGE**" appears on the display.

   Note: The same list is shared by both Call Alert and Private Conversation features.

   Note: If your radio has been so programmed, you can press the page button for quick access to the Call Alert feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.



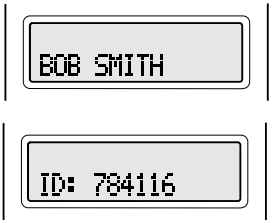
2. Press the key below "**PAGE**." The display changes to show the last ID number transmitted or received. You can now select an ID number from the list.

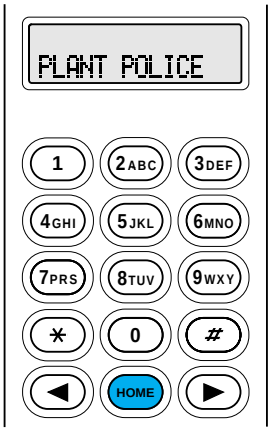


3. To enter the list, press either the right (►) arrow key or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

   Note: The last member of the list will be the "last ID transmitted or received." This member can also be found at location "00" in the list (see "Paging an ID Number at a Location in the Call List").

4. When you stop on a member of a list, the display will alternate between showing the member's name and ID number.





Call Alert Page Operation (cont.)

5. Press the PTT switch to send the ID number.

6a. *If you hear one beep*, the ID number has been received by the system, but the radio you are paging is not on the air; your radio remains in the Call Alert mode. You can either go back to step 5 and press the PTT switch to send the ID number again, or press the **HOME** key to hang up and return to the home display.

Note: If after six seconds the called radio fails to acknowledge the alert, a low-pitched alert tone sounds and the display changes to "**NO ACKNOWLEDGE**". Try again or press the **HOME** key to exit

or

6b. *If you hear five beeps*, the ID number has been received by the system, and the radio you are paging is on the air and has received your page. The radio automatically returns to the home display.

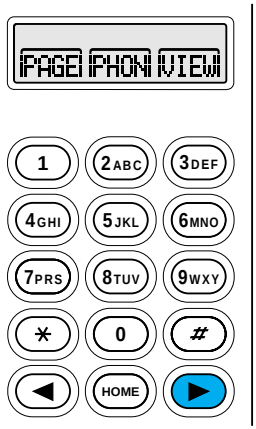
Call Alert Page Operation (cont.)

Paging an ID Number at a Location in the Call List

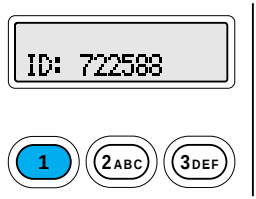
1. You can also Call Alert page an ID number at a particular location in the preprogrammed call list (for example, the fifth location in the list would be position "5"). To do this, press the right arrow key (►) until "**PAGE**" appears on the display.

   Note: The same list is shared by both Call Alert and Private Conversation features.

   Note: If your radio has been so programmed, you can press the page button for quick access to the Call Alert feature. This will take you directly to the "last ID number transmitted or received" display shown in step 2; skip to step 3.



2. Press the key below "**PAGE**." The display changes to show the last ID number transmitted or received. You can now select an ID number from the list.



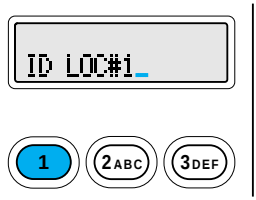
3. To enter the list, press either the right (►) arrow key or the left (◄) arrow key. The right arrow key will take you forwards to the first or next member of the list; the left arrow key will take you backwards to the last or previous member of the list.

   Note: The last member of the list will be the "last ID transmitted or received." This member can also be found at location "00" in the list.

4. Enter the first digit of the location number.

   a. If there are fewer than 10 members in the list, the radio goes immediately to that position in the list, and the display alternates between showing that list member's name and ID number. Go directly to step 7.

   b. If there are 10 or more members in the list, the display changes to show "**ID LOC#X_**" (where X is the first digit). The cursor will flash to show the location of the second digit. Continue with step 5.



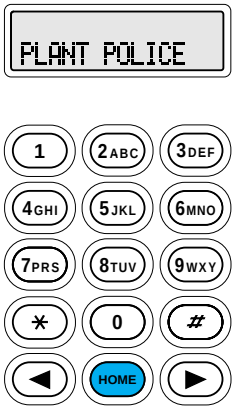
Call Alert Page Operation (cont.)

5. Enter the second digit of the location number.

6. Then, the radio goes to that position in the list, and the display alternates between showing that list member's name and ID number.

Note: If you enter a location number that does not exist (for example, "24"), the display will show "**INVALID ENTRY**," and the radio will sound an invalid-keypress tone and return back to step 4 of this procedure.

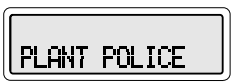
7. Press the PTT switch to send the ID number.



8a. *If you hear one beep*, the ID number has been received by the system, but the radio you are paging is not on the air; your radio remains in the Call Alert mode. You can either go back to step 5 and press the PTT switch to send the ID number again, or press the **HOME** key to hang up and return to the home display.

Note: If after six seconds the called radio fails to acknowledge the alert, a low-pitched alert tone sounds and the display changes to "**NO ACKNOWLEDGE**". Try again or press the **HOME** key to exit

or



8b. *If you hear five beeps*, the ID number has been received by the system, and the radio you are paging is on the air and has received your page. The radio automatically returns to the home display.

Automatic Multiple Site Selection (AMSS)

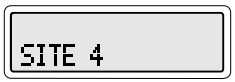
The automatic multiple site selection (AMSS) feature extends communications beyond the reach of a single trunked site (antenna location). In a system where wide-area coverage is required, multiple trunking sites are used.

AMSS automatically switches the radio to a different site when the current-site signal becomes too weak. Typically, this happens when the radio is moved out of the range of one site and into the range of another. Under normal conditions, this switching is invisible to the user.

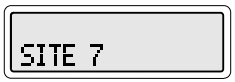
Viewing the Current Site and Forcing a Site Change

1. Momentarily press the search button (programmed via the RSS).

   a. If the radio is presently locked onto a site, the display will show the number of current site.

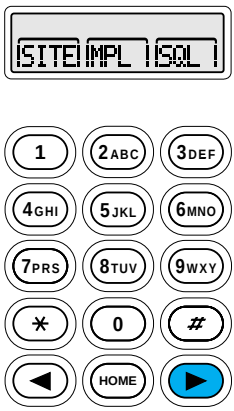


   b. If the radio is scanning for a new site, the display will show "**SCANNING**" until it locks onto a new site, then it will show the number of the new site.



2. Press and hold down the search button to manually force the change to a new site. You will hear a tone and the display will show "**SCANNING**" while the radio scans for a new site.

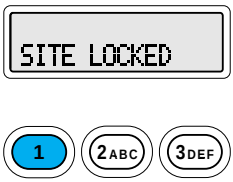
   Then, the radio will automatically return to the home display.



Automatic Multiple Site Selection (AMSS) (cont.)

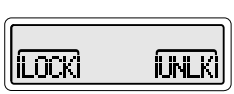
Locking and Unlocking a Site

1. Press the right arrow key (►) until "**SITE**" appears on the display.



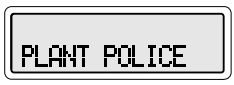
2. Press the key below "**SITE**." The current lock state (in this case "**SITE LOCKED**") appears on the display for a few seconds.

   Note: The search button is still operable, so you can view the current site if you choose.



Then, the display shows "**LOCK**" and "**UNLK**."

3. Press the key below the desired lock state.



Then, the radio automatically returns to the home display.

Dynamic Regrouping

The dynamic regrouping feature allows the dispatcher to temporarily reassign selected radios, operating in the same or different trunked modes, to a single special mode so that they can communicate with each other. This feature, enabled in each radio via the RSS, is typically used during special operations. When your radio has been dynamically regrouped, you will hear a distinct “gurgle” tone.

Mechanical Mode Selection

You will not notice whether your radio has this feature enabled until a dynamic regrouping is sent by the dispatcher. If you turn your radio's mode selector knob to the dynamic regrouping position without being dynamically regrouped, an invalid-mode tone will be heard.

1. When your radio has been dynamically regrouped, you will hear a “gurgle” tone. Your radio will be automatically switched to the dynamic regrouping mode; the display will show the name assigned to the dynamic regrouping mode.

   Note: SECURENET-equipped radios are assigned (by the dispatcher for the dynamic-regrouping mode) to be secure-only, clear only, or secure / clear selectable by the two-position concentric switch.

2. Turn the mode selector knob to the dynamic regrouping position to transmit on the dynamic regrouping mode.

   Note: Until you select the correct position, you will hear a gurgle tone each time you press the PTT switch, reminding you that you are transmitting on the dynamic regrouping mode, not the mode indicated by the position of the mode selector knob.

3. Talk and listen as usual.

4. When the dynamic regrouping is cancelled by the dispatcher:

   a. If the mode selector knob is in the dynamic regrouping position, an invalid-mode tone will be heard until a normal mode is selected.

   b. If the mode selector knob is in any other mode position, the radio will transmit in the selected mode.

Electronic (Menu) Mode Selection

You will not notice whether your radio has this feature enabled until a dynamic regrouping command is sent by the dispatcher. If you select the dynamic regrouping mode via the menu without being dynamically regrouped, an invalid-mode tone will be heard.

1. When your radio has been dynamically regrouped, you will hear a “gurgle” tone. Your radio will be automatically switched to the dynamic regrouping mode.

2. Talk and listen as usual.

3. When the dynamic regrouping is cancelled by the dispatcher:

   a. If the dynamic regrouping mode was selected, the radio will automatically return to the mode that was selected before the radio was dynamically regrouped.

   b. If the dynamic regrouping mode was not selected, the radio will remain active on the selected mode.

Dynamic Regrouping (cont.)

Select Enable and Disable

The dispatcher may classify regrouped radios into either of two categories: “select enabled,” and “select disabled.”

- Select-enabled radios are free to make mode changes to any available mode, including the dynamic regrouping mode.
- Select-disabled radios cannot change modes, since the dispatcher has specifically chosen to force the radio to remain in the dynamic mode.

Note: Scan, Phone, and Private Conversation cannot be selected while the radio is select disabled.

Caller ID Display

The Caller-ID feature will momentarily display the 6-digit ID or alias name of the radio that initiated a talkgroup call, call alert, or a private call. Two options are available: Caller ID and Aliased Caller ID.

1. Caller ID will display the 6-digit ID of the radio which initiates a group or individual call.
2. Aliased caller ID will display the 6-digit ID of the radio which initiates a group or individual call. If the ID of the radio which initiates the call is in the pre-programmed call list of your radio, your radio will display the alias name instead of the 6-digit ID.

Caller ID When an Emergency Call is Received

If the emergency receive indication is enabled in your radio and an emergency call is received, your radio will alternate the display between the ID (or alias name) of the radio that initiated the emergency call, the emergency received display, and the talkgroup (Zone / Chan assignment).

“**ID: 700001**” “**EMER RECEIVED**” “**POLICE NORTH**”

Notes:

- Only the ID of the radio that initiates the conversation will be displayed on your radio. If other radio users continue the conversation without allowing the channel to drop, their IDs will not be displayed on your radio.
- This feature is not available on Type I Trunked Systems.

Programmable Home Mode Button

The **HOME** key may be programmed via the RSS as a mode preset button. The Programmable Home Mode Button allows you, the radio operator, to preset a commonly used mode for quick access.

1. Select the desired mode using the channel selector or the zone and channel menu keys.
2. Press and hold the **HOME** key until a good-key tone is heard.
3. Your **HOME** key is now programmed to the currently selected mode.
4. When operating on any mode in your radio, a short press of the **HOME** key will cause the radio to immediately change to the preset mode.

SmartZone™ Operation

Radios that operate in a SmartZone system will enjoy the benefits that SmartZone brings over AMSS operation. Like AMSS, SmartZone is a wide-area coverage system that will allow up to 50 sites to be operational in the system. SmartZone brings several enhancements over AMSS operation such as:

- Dynamic Site Assignment - Allows the zone controller to dynamically assign channels at sites where required, as opposed to bringing up channels at all of the sites as AMSS systems do.
- Variable Density Sites - SmartZone allows sites to have varying numbers of channel resources to accommodate low-density areas as well as high-density areas.
- Automatic Site Registration / De-registration - SmartZone radios automatically send in their unit IDs and current mode selections upon power up, power down, site switches, mode changes, and when they exit emergency operation. This allows the zone controller to know where the radio is at all times, and also what mode the radio has selected.
- Critical Site Assignment - One or more sites can be designated as critical sites. This will instruct the zone controller to ensure that, before a channel grant is given to a radio that has been identified as a critical site user, every site that is designated as a critical site must have available channel resources, otherwise a busy will be sent to the unit.
- Busy Override - This feature allows a SmartZone radio to send a busy override request if a busy is issued. The zone controller will send a grant even though not all of the sites may have available channel resources.
- Enhanced Automatic Site Switching - SmartZone radios will use RSSI (received signal strength indication) to determine if the radio should switch to another site; this will be transparent to the user. In addition, the zone controller continuously transmits up to seen adjacent site IDs (along with their active control modes) to the radios, so that the radio, at any time, will be able to quickly switch to the next site that has the highest RSSI rating, since the control mode and site ID is known in advance. This is an enhancement over AMSS systems.
- Preferred Site - SmartZone radios can program certain sites to be *always* preferred, *most* preferred, or *least* preferred. This gives the user the flexibility to keep a radio on a particular site, regardless of the presence of a stronger signal from an adjacent site. This also forces the radio to always look for its preferred site and use it whenever possible.
- Site Trunking - If the zone controller loses communication with any site, that site will revert to what is known as “site trunking.” While in this condition, radios will still be able to operate in the trunking mode, but trunking operations will be limited to the site only.
- Enhanced Failsoft Operation - If a site experiences a complete failure, it will revert to failsoft operation like today's SMARTNET system. A SmartZone radio, however, can be programmed to automatically migrate to the lowest failsoft frequency programmed in its list of 32 control modes. The radio will periodically scan the control mode to check for the presence of a valid control mode (in case the radio roamed into a site which is trunking).

SmartZone™ Operation (cont.)

Site Switching in SmartZone

Site Switching in SmartZone mainly uses signal strength to determine whether or not to switch sites. Other factors used to determine whether the radio should switch sites is the radio's preferred site selection (which is programmable via the RSS), and whether the radio is site locked or not. Because the radio at all times knows the site ID, active control mode, and the signal strengths of its adjacent sites, the radio is capable of quickly switching sites, which under normal conditions is invisible to the user.

Viewing the Current Site and Forcing a Site Change

1. Momentarily press the search button (programmed via the RSS).
   a. *If the radio is presently locked onto a site*, the display will show either the name of the current site or the site number (determined by RSS programming).
   b. *If the radio is scanning for a new site*, the display will show "**SCANNING SITES**" (MTS 2000 III radios only) until it locks onto a new site. This is a timed display which will disappear after a few seconds.
   c. *If the radio has not yet received a site ID outbound signalling word (OSW)*, the radio will display "**SITE XX**" until either the display times out or the radio receives the site ID OSW.
2. Press and hold down the search button to manually force the change to a new site. You will hear a tone and the display will show "**SCANNING SITE**" (MTS 2000 III radios only) while the radio scans for a new site.
3. When a new site is found, the new site's name will be momentarily displayed if it is known, otherwise "**SITE XX**" will be displayed.

Locking and Unlocking a Site

As in an AMSS radio, you can force the radio to stay locked onto a site, regardless of whether the signal level of an adjacent site is higher or not. Of course, locking a radio onto a particular site will defeat the automatic site switching mechanisms of the radio. Note that you can still force the radio to scan to another site while site locked. The radio will automatically become site locked to the next site it finds. Refer to the section on AMSS operation for a description of how to enter the radio into and out of the locked state.

SmartZone Operation (cont.)

Preferred Site Selection

SmartZone radios can have up to eight sites that are individually set as either "always preferred," "most preferred," or "least preferred." The default value is no preference. This feature is programmed via the RSS.

- Always-Preferred Site – A SmartZone radio will always attempt to stay on this site whenever possible unless the receive signal strength indication (RSSI) level falls below the unacceptable level. The radio will periodically check the RSSI levels of its preferred site(s) to ensure that it will always operate on the best preferred site (more than one preferred site can be enabled).
- Most-Preferred Site – A site marked in this fashion is one level of preference below "always preferred." The radio will attempt to remain on this site unless an always-preferred site has been determined to have either the same or a higher RSSI level. The radio will always determine the best most-preferred site and switch to it whenever possible.
- Non-Preferred Site – A radio operating in this site will switch sites if an always preferred or most-preferred adjacent site with the same or higher RSSI level is discovered. The radio will always determine the best non-preferred site and switch to it whenever possible.
- Least-Preferred Site – A radio operating in this site will switch sites if any of the above site rankings for any adjacent sites are discovered and their RSSI levels are at least at the acceptable range. The unit will always determine the best least-preferred site and switch to it whenever possible.

Busy Override

With the introduction of dynamic site assignment, critical site, and critical user concepts in SmartZone, the busy processing rules were changed in order to allow users to establish communication with some of the trunked mode members instead of waiting for all trunked mode members in all sites to be available. A busy override request can be made to request for the grant, even though one or more non-critical states are busied. Busy override is not a radio codeplug option but it is enabled or disabled via the SmartZone manager.

1. Assume that you have requested a mode by pressing the PTT, and have received a busy indication. Release the PTT and press it again. A busy indication will be received if modes are still busy.
2. Keep the PTT switch pressed for the amount of time specified in the codeplug for "busy override delay time" (typically about three seconds, but can range from two to six seconds). After the timer times out, if the PTT is still pressed, the busy override request will be sent.
3. A programmable busy override chirp acknowledgement will be sounded when the busy override request is sent.
4. If a grant is received, you should be aware that not all of the members of the mode may be engaged in the call. You will not be able to determine this. More sites may join the call, however, if modes become available at these sites and the original call is still active.

SmartZone Operation (cont.)

Site Trunking

Site trunking occurs when a site is not longer able to participate in wide-area calls controlled by the zone controller. Radios operating in site trunking can only communicate with other radios at that site. All trunking features are still available. The radio will of course always be looking for a wide-area trunking site to lock onto if it roams into range of one. Also, busied call requests will automatically be queued at the new site if a site switch is done.

1. When a site goes into site trunking, the radio will receive this indication and will display "**SITE TRUNKING**" (MTS 2000 lll radios) or "**SITE TRK**" (MTS 2000 ll radios).
2. The display will alternate between the current trunked mode and the site trunking display for as long as the radio remains in site trunking. A radio-wide codeplug option will specify whether a site trunking indication will be displayed or not.
3. The radio will not be considered in site trunking if:
   a. The zone controller determines that the site should no longer be in site trunking and the radio receives this indication, or
   b. the radio is out of range, or
   c. the radio enters failsoft operation.

Received Signal Strength Indication (RSSI) Text Display

RSSI is used by the radio in Smartzone site switching. It gives an indication of how strong a signal is being received by the radio. RSSI values are shown below.

When pressing the SRCH button, the radio will display the current site followed by the RSSI text display.

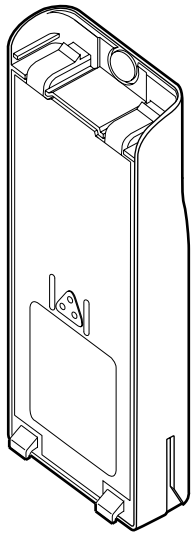
Signal Rating	RSSI Value
EXCELLENT	87 and above
GOOD	80 - 86
ACCEPTABLE	74 - 79
POOR	below 74

Battery Information

The MTS 2000 radio receives its power (7.5Vdc) from a rechargeable nickel-cadmium battery as listed in the accessories section. These batteries are a safe, dependable power source for your radio. Proper care of the battery will ensure its effectiveness and allow for peak radio performance.

Recharging Nickel-Cadmium Batteries

Recharge the battery before use to ensure optimum capacity and performance. The battery was designed specifically to be used with a Motorola MTS 2000 charger. Charging in non-Motorola equipment may lead to battery damage and void the battery warranty.



Note: When charging a battery that is attached to the radio, turn the radio off to ensure a full charge.

WARNING: Do not attempt to change or charge the battery in a hazardous atmosphere.

Charging Temperature

The battery should be at about 77°F (room temperature) whenever possible. Charging a cold battery (below 50° F) may result in leakage of electrolyte and, ultimately, in failure of the battery. Charging a hot battery (above 95°F) results in reduced discharge capacity, affecting the performance of the radio. MTS 2000 rapid-rate battery chargers contain a temperature-sensing circuit to ensure that the battery is charged within these temperature limits.

Short Circuit

Care should be taken to avoid external short circuiting of the battery.

WARNING: A sustained high-rate discharge (for example, a paper clip placed accidentally across the battery contacts) may permanently damage the battery, void the battery warranty, and create a burn or fire hazard.

Memory Effect (Reduced Charge Capacity)

Memory effect was a phenomenon which caused a temporary loss in battery capacity or voltage due to repetitive shallow discharging or long-term overcharging. This memory effect has been virtually eliminated from Motorola batteries through the use of new cell technology.

Nickel-Cadmium Battery Disposal

For disposal, nickel-cadmium sealed rechargeable batteries should be delivered to an authorized metals reclamation dealer, or returned to Motorola.

WARNING: Do not dispose of any batteries in a fire, as they may explode!

Accessories List

Motorola offers several accessories to increase communications efficiency. Many of the accessories available are listed below, but for a complete list, consult your local Motorola representative.

Note: Accessories whose numbers are followed by an asterisk (*****) are approved as being Intrinsically Safe by Factory Mutual Research Corporation (FMRC). Refer to the radio label for intrinsic safety ratings and required batteries. Only the accessories noted (by an *****) may be used on FMRC-approved radios.

Antennas:

NAD6563*	Helical, Wide Band (136-174MHz)
NAD6566*	Helical (136-151MHz)
NAD6567*	Helical (151-162MHz)
NAD6568*	Helical (162-174MHz)
NAE6546	Helical (403-435MHz)
NAE6547	Helical (435-470MHz)
NAE6548*	Helical (470-512MHz)
NAE6549*	Whip (403-512MHz)
NAF5037*	Whip (800MHz)
NAF5038*	Whip (900MHz)
NAF5039*	Dipole (800MHz)
NAF5040*	Dipole (900MHz)
NAF5042*	Quarter Wave, Stubby (800MHz, 900MHz)

Batteries:

NTN7143	High-Capacity Nickel-Cadmium (class I, division 2, groups A, B, C, D)
NTN7144	Ultra-High-Capacity Nickel-Cadmium (class I, division 2, groups A, B, C, D)
NTN7146*	High-Capacity Nickel-Cadmium FMRC Intrinsically Safe (class I and II, division 1, groups D, F, G)
NTN7147*	Ultra-High-Capacity Nickel-Cadmium FMRC Intrinsically Safe (class I and II, division 1, groups D, F, G)
NTN7341*	Ultra-High-Capacity Nickel-Cadmium FMRC Intrinsically Safe (class I and II, division 1, groups C, D, E, F, G)
NTN7372*	High-Capacity Nickel-Cadmium FMRC Intrinsically Safe (class I and II, division 1, groups C, D, E, F, G)

Single-Unit Slow-Charge Battery Chargers, 50/60Hz Desk-Top:

NTN1174	117Vac, with 117Vac Wall-Mount Transformer
NTN1175	220Vac with International 220Vac Wall-Mount Transformer
NTN1176	240Vac with International 240Vac Wall-Mount Transformer

Accessories List (cont.)

Single-Unit Rapid-Charge Battery Chargers, 50/60Hz Desk-Top:

NTN1171 117Vac, with 117Vac Cord and Plug
NTN1172 International 220Vac with International 220Vac Cord and 2-Prong Plug
NTN1173 International 240Vac with International 240Vac Cord and 3-Prong Plug

Single-Unit Dual-Rate Battery Chargers, 50/60Hz Desk-Top:

NTN1168 117Vac with 117Vac Cord and Plug
NTN1169 International 220Vac with International 220Vac Cord and 2-Prong Plug
NTN1170 International 220Vac with International 240Vac Cord and 3-Prong Plug

Multi-Unit Battery Chargers, Six-Pocket Dual-Rate 50/60Hz:

NTN1177 90-240Vac, with 117Vac Cord and Plug
NTN1178 90-240Vac with International 220Vac Cord and 2-Prong Plug
NTN1179 90-240Vac with International 240Vac Cord and 3-Prong Plug

Remote Speaker/Microphones:

NMN6191 Noise-Canceling Microphone; Includes Coiled Cord Assembly, 3.5mm Earjack, and Swivel Clip
NMN6192 Noise-Canceling Microphone; Includes Antenna (S.M.A.) UHF, 800/900MHz (VHF Capable), Coiled Cord Assembly, 3.5mm Earjack, Swivel Clip, and Receive Audio High-/Low-Volume Pushbutton
NMN6193* Standard Microphone; Includes Coiled Cord Assembly, 3.5mm Earjack, and Swivel Clip
NMN6194* Standard Microphone; Includes Antenna (S.M.A.) UHF, 800/900MHz (VHF Capable), Coiled Cord Assembly, 3.5mm Earjack, Swivel Clip, and Receive Audio High-/Low-Volume Pushbutton

Carry Accessories:

NLN6042 3" Black Belt
NLN6349 Shoulder Carry Strap
NLN8410 Velcro Patch Pin Attachment
NTN7238 Leather Carry Case with Belt Loop and T-Strap for High-Capacity
NTN7239 Leather Carry Case with Belt Loop and T-Strap for Ultra-High-Capacity
NTN7241 Leather Carry Case with 2.5" Swivel Belt Loop and T-Strap for High-Capacity
NTN7242 Leather Carry Case with 2.5" Swivel Belt Loop and T-Strap for Ultra-High-Capacity
NTN7244 Leather Carry Case with 3" Swivel Belt Loop and T-Strap for High-Capacity
NTN7245 Leather Carry Case with 3" Swivel Belt Loop and T-Strap for Ultra-High-Capacity
NTN7247 Fabric Carry Case with Belt Loop for High- and Ultra-High-Capacity
NTN7317 Belt Clip (Fits 2.5" Belt)
NTN7318 Belt Clip (Fits 3.5" Belt)

Transmitting Distance

Several conditions determine the distance that your radio will transmit a clear data / voice communication. The following list describes many conditions and their typical affect on your radio's transmitting distance.

Condition	Description	Effect
radio's power	more power	longer distance
radio's frequency	lower frequency (VHF compared to UHF)	longer distance
radio's tuning	properly tuned radio (on frequency, more power)	longer distance
stormy weather	adverse atmospheric conditions	shorter distance
at sea	better ground plane (clearer line-of-sight)	longer distance
city	large / tall buildings (interference problems)	shorter distance
in a building	structural boundaries (interference problems)	shorter distance
on a tall building's roof	less interference (clearer line-of-sight)	longer distance
in a subway	below ground level (interference problems)	shorter distance
on top of a hill	less interference (clear line-of-sight)	longer distance
intervening hills	more interference (no line-of-sight)	shorter distance
inside a vehicle	metal structure (interference problems)	shorter distance

Radio Care

Cleaning

Clean external surfaces of the radio with a mild detergent and a stiff, non-metallic, short-bristled brush. A suitable detergent solution may be mixed by adding one teaspoon of mild dishwashing detergent to one gallon of water (0.5% solution). Apply the detergent solution sparingly with the brush, being careful not to allow excess detergent to remain entrapped near connectors and controls or in cracks and crevices. Do not submerse the radio in the detergent solution. Dry the radio thoroughly with a soft, lint-free cloth.

Clean all battery contacts with a lint-free cloth to remove dirt, grease, or other foreign material that may prevent good electrical connections.

Handling

- Avoid physical abuse; do not pound, drop, or throw the radio unnecessarily. Do not carry the radio by the antenna.
- Avoid subjecting the radio to an excess of liquids. Never allow the radio to become submersed.
- Avoid subjecting the radio to corrosives, solvents, or spirits.

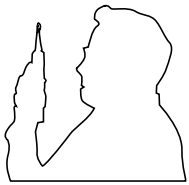
CAUTION

Clean the radio with the recommended solution only. Cleaning the radio with solvents or spirits may be harmful and permanently damage the radio housing.

Do not disassemble the radio in any way. Keep the connector cover in place until ready to use the accessory connector. Replace the cover immediately after the accessory has been disconnected.

FCC Safety Standards

The Federal Communications Commission (FCC), with its action in General Docket 79-144, March 13, 1985, has adopted a safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated equipment. Motorola subscribes to the same safety standard for the use of its products. Proper operation of this radio will result in user exposure substantially below FCC recommended limits:



- Do not hold the radio with the antenna very close to, or touching, exposed parts of the body, especially the face, ears, or eyes, while transmitting. Hold the radio in a vertical position with the microphone two to three inches away from the lips.
- Do not hold the transmit switch (PTT) on when not actually desiring to transmit.
- Do not allow children to play with any radio equipment containing a transmitter.
- Do not operate radio transmitters near explosive blasting caps.The transmitted radio energy may trigger a blasting cap and cause an explosion.
- Do not operate radio transmitters in an explosive atmosphere unless it is a type especially qualified for such use. An explosion may result.
- Do not replace or charge batteries in a hazardous atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.
- Turn radio off when removing or installing a battery.

Anyone intending to use a radio in a hazardous area is advised to become familiar with the subject of intrinsic safety and with Section 70 of the National Fire Code, which is commonly referred to as Article 500 of the National Electric Code. Use of anything but factory supplied components may affect the approval and safety of the radio. Likewise, it is advised that servicing should be performed only by qualified personnel who adhere to the following Factory Mutual Research Corporation (FMRC) required warning:

WARNING: Modification of (FMRC) approved intrinsically safe radios will negate Factory Mutual Research Corporation (FMRC) approval.

Factory Mutual Research Corporation (FMRC) Information

Certain MTS 2000 radios and batteries have been declared intrinsically safe by Factory Mutual Research Corporation (FMRC) of Norwood, Massachusetts, for use in hazardous atmospheres. FMRC-approved radios are identified by attached certification labels and by matching green dots found on the bottoms of the radios and batteries. The intrinsically-safe rating by Factory Mutual Research Corporation states that electrical equipment is incapable of releasing sufficient electrical or thermal energy, under normal or abnormal operating conditions, to cause ignition of a specific hazardous atmosphere. This means that the MTS 2000 radio has been thoroughly tested by FMRC and carries its certification for operation in the hazardous atmospheres designated on the radio label. **Radios must ship from the Motorola factory with the hazardous atmosphere capability and cannot be modified in the field.** Failure to use the radio with the approved battery will negate the approval. MTS 2000 radios that are approved by FMRC can be used in those applications requiring reliable, two-way, hand-held radios in the listed specific hazardous atmospheres. Motorola-approved equipment and accessories, along with competitive equipment approvals, are listed in the yearly approval guide published by Factory Mutual Research Corporation. This guide can be ordered from the following address:

Training Resource Center, Publications-Order Processing Dept.
Factory Mutual Research Engineering and Research,
1151 Boston-Providence Turnpike
P.O. Box 9102, Norwood, MA 02062

Telephone:

(617) 762-4300, extension 2152

Restrictions

Because this radio contains a transmitter, federal law prohibits unauthorized, non-licensed personnel from adjusting or maintaining it. If any operational difficulties should arise while using this product, report them to authorized service personnel as soon as possible.

Do not attempt any unauthorized modification to the radio.

Service

Proper repair and maintenance procedures will assure efficient operation and long life for this product. A Motorola maintenance agreement will provide expert service to keep this and all other communication equipment in perfect operating condition. A nationwide service organization is provided by Motorola to support maintenance services. Through its maintenance and installation program, Motorola makes available the finest service to those desiring reliable,continuous communications on a contract basis.

Motorola's Customer Service Division is the largest service organization specializing in mobile communications. It includes over 900 authorized or company-owned stations. In addition, our products are serviced throughout the world by a wide network of company or authorized independent distributor service organizations. For a contract service agreement, please contact your nearest Motorola service representative, authorized Motorola dealer, or Motorola sales representative. If you suspect a radio problem, check the following items before requesting service.

1. Radio Checks

   - Be sure the radio is turned on and the mode selector knob is in the proper position.
   - Replace or recharge the battery. The first time a new battery is used, it should charge a minimum of 16 hours.
   - The antenna must be screwed on properly, with its base flush against the top of the radio.
   - Could your radio problem be caused by accessories improperly connected?
   - Try operating the radio from several different locations, especially when using the radio inside buildings.
   - Check the transmitter by transmitting to an alternate portable radio.

2. Operating Instructions

   Review your operating instructions and ensure that you are using the radio properly.

3. Problem Not Solved

   If, after following steps 1 and 2, your radio still has a problem, review your service agreement and call the applicable Motorola service representative. If you do not have a service agreement on your radio, contact your nearest authorized Motorola service shop for guidance toward a prompt and expedient evaluation and/or repair.

Express Service Plus (ESP)

Express Service Plus (ESP) is an optional extended service coverage plan. ESP provides for the repair of this product, at the Motorola Service Center listed in step 3, below, for a period of three years (one year warranty plus two years of extended service) from the date of shipment from the factory, or the date of delivery if purchased from an authorized Motorola two-way radio dealer. If ESP has been purchased, the serial number of this product has been registered for coverage under Express Service Plus at the depot listed in step 3, below.

To obtain service under Extended Service Plus:

1. Check to make sure the battery or battery charger of the unit is not defective. (Batteries and chargers are excluded from this service plan).

2. Include the following information:

   Your name
   Company name
   Address
   Telephone number
   A brief description of the nature of the problem or failure (be specific)

3. Pack and ship the unit (prepaid) to:

   Rockford Service Center
   3761 South Central Avenue
   Rockford, IL 61102

   Express Service Plus is subject to Motorola standard terms and conditions. ESP does not include repairs which will be necessary due to damage caused by accidents, physical abuse or misuse of the product(s), acts of God, and fires. Batteries, battery chargers, and external accessories are excluded from this plan. Service under ESP is available only at the service center listed herein.

If you are unsure whether your radio is covered under Express Service Plus, call the Rockford Service Center at 1-800- 227-6772.

Computer Software Copyrights

The Motorola equipment described in this manual may include copyrighted Motorola computer programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted computer programs, including the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola computer programs contained in the Motorola equipment described in this manual may not be copied or reproduced in any manner without the express permission of Motorola. Furthermore, the purchase of Motorola equipment shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Motorola, except for the normal nonexclusive, royalty free license to use that arises by operation of law in the sales of a product.

Patent Disclosure

This product is covered by one or more of the following United States patents:

4,512,035	4,551,856	4,653,117	4,816,774
4,829,594	4,837,853	4,864,252	4,885,550
4,914,321	4,918,403	4,959,617	4,975,650
4,994,768	5,006,730	5,021,754	5,079,526

OPERATING INSTRUCTIONS QUESTIONNAIRE

We believe that reports from users provide valuable information for producing quality operating instructions. Your comments and answers to the following questions will aid us in preparing manuals that contain accurate and complete information of maximum benefit to you.

In reference to Manual No. **68P81072C45-E**

MTS 2000™ FLASHport™ Portable Radios

1. Please check all the appropriate boxes:

		Clear	Confusing	Too Detailed	Too Brief	Adequate	Complete	Incomplete	Incorrect	Not Covered in This Manual
Controls and Features	text									
	illustrations									
Operating Procedures	text									
	illustrations									
Alert Tone Explanations										
Battery Information										
Options										
Model Information										
Accessories										
General Care Information										
Other (specify)										

2. For illustrating procedures, do you prefer:
❒ photographs ❒ line drawings ❒ no preference

3. How would you rate the overall organization of this manual?
❒ excellent ❒ very good ❒ good ❒ fair ❒ poor

4a. If this manual has a "quick reference card," do you use it?
❒ yes ❒ no

4b. If yes, how useful is it to you?
❒ extremely ❒ very ❒ somewhat ❒ not very

5. How do you rate this manual overall?
❒ excellent ❒ very good ❒ good ❒ fair ❒ poor

6. Comments / Recommendations for improving operating instructions.

_____

_____

_____

CUT ALONG DOTTED LINE

From: _____

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MOTOROLA

Radio Products Group

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Room 2352
8000 W. SUNRISE BOULEVARD
FT. LAUDERDALE, FLORIDA 33322

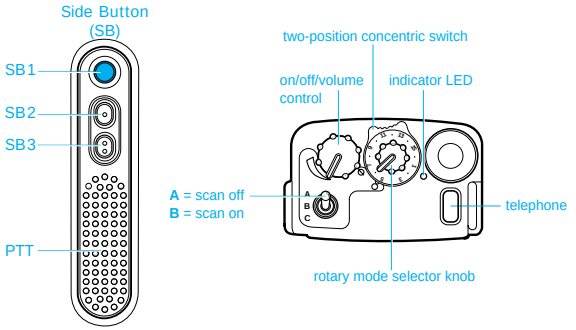
Basic Radio Operation

TURNING THE RADIO ON OR OFF:

Turn on/off/volume control:
clockwise = on/counterclockwise = off.

SELECTING A ZONE AND MODE:

1. Press (►) until display shows "**ZONE**."
2. Press key below "**ZONE**."
3. Press (►) until display shows desired zone name, or enter desired zone number.
4. To store zone shown, press **HOME** or PTT, or turn mode selector knob.
5. Select desired mode with mode selector knob. The display shows mode's name.



SETTING VOLUME:

1. Turn radio on and select zone and mode.
2. *(a)* Listen for transmission, then adjust volume control to a comfortable level; *or (b)* If radio is so programmed, press volume set button and adjust volume control to a comfortable level.

RECEIVING:

1. Turn radio on.
2. Select zone and mode.
3. Set volume. You are ready to receive on selected zone and mode.

MONITORING (CONVENTIONAL MODES ONLY): Momentarily press (tap) monitor button and listen for voice activity. To put radio in permanent-monitor operation, press monitor button for 5 seconds (a short, high-pitched tone sounds); Tap monitor button again or press PTT to exit permanent monitor operation.

TRANSMITTING:

Conventional—	*Trunked—*
1. Turn radio on. 2. Select zone and mode. 3. Set volume. 4. Monitor selected mode to be sure no one else is using it. 5. When mode is clear, press and hold PTT to talk (transmit); release PTT to listen (receive).	1. Turn radio on. 2. Select zone and mode. 3. Set volume. 4. Press and hold PTT to talk (transmit); release PTT to listen (receive).

General Radio Features Operation

SECURENET OPERATION (SECURENET-EQUIPPED RADIOS ONLY):

1. 2-position concentric switch always indicates transmit operation of radio (secure or clear).
2. If mode can be selected as clear-only or secure-only, 2-position concentric switch sets transmit operation of radio before PTT is pressed.
3. If mode is programmed for secure-only, and 2-position concentric switch is set for clear operation, invalid-mode tone sounds when PTT is pressed, and radio will not transmit until 2-position concentric switch is set for secure operation.
4. If mode is programmed for clear-only and 2-position concentric switch is set for secure operation, invalid-mode tone sounds when PTT is pressed, and radio will not transmit until 2-position concentric switch is set for clear operation.

EMERGENCY OPERATION:

Sending Emergency Alarm

1. Press and hold emergency button until LED lights solid red, emergency tone sounds, and display alternates between "**EMERGENCY**" and current zone and mode.
2. When base acknowledges alarm, 4 beeps sound and radio returns to normal.

Sending Silent Emergency Alarm—Same as above, except no LED, tones, or display indications.

Cancelling Emergency Alarm—Before alarm is acknowledged, press and hold down emergency button (exit tone sounds); radio returns to normal. Also, press PTT or turn radio off (no exit tone sounds).

Sending Emergency Call (Trunked Systems Only)

1. Press and hold emergency button until LED lights solid red, emergency tone sounds, and display alternates between "**EMERGENCY**" and current zone and mode.
2. Press PTT to request trunked priority assignment.
3. To exit emergency call mode, press emergency button for more than 1 1/2 seconds; emergency-exit tone sounds until button is released.

MUTING KEYPAD TONES:

1. Press (►) until display shows "**MUTE**."
2. Press key below "**MUTE**." Display shows current mute state ("**TONES ON**"; "**TONES OFF**"), then shows "**ON**" and "**OFF**."
3. Press key below desired mute state. Radio saves new mute state and returns to home display.

SCAN OPERATION:

Turning Scan On—

1. With scan off: *(a)* Put scan select switch in "scan on" position, then skip to step 4; *or (b)* Press (►) until display shows "**SCAN**."
2. Press key below "**SCAN**." Display shows current scan state ("**SCAN OFF**"), then shows "**ON**" and "**OFF**."

SCAN OPERATION (CONT.):

3. Press key below "**ON**"; radio returns to home display.
4. Radio starts scanning; scan status annunciator turns on.

Turning Scan Off—

1. With scan on: *(a)* Put scan select switch in "scan off" position, then skip to step 4; *or (b)* Press (►) until display shows "**SCAN**."
2. Press key below "**SCAN**." Display shows current scan state ("**SCAN ON**"), then shows "**ON**" and "**OFF**."
3. Press key below "**OFF**"; radio returns to home display.
4. Radio stops scanning; scan status annunciator turns off.

Deleting Nuisance Mode—

With radio locked onto mode to be deleted (priority modes, and mode selected with mode-selector switch cannot be deleted), press nuisance-delete button; a valid-keypress chirp sounds. To resume scanning the deleted mode, leave and reenter scan, or delete a different mode.

Dynamic Priority Change—

With radio locked onto mode to be designated as priority 2 (priority 1 mode cannot be changed), press dynamic-priority button. A valid-keypress chirp sounds. To resume scanning the regular priority 2 mode, leave and reenter scan

Viewing Scan List—

1. Press (►) until display shows "**VIEW**," then press key below "**VIEW**."
2. Press key below "**SCAN**."
3. Press (►) to scroll through list members.
4. To exit list viewing, use **HOME**, PTT, or mode selector knob.

Conventional Radio Features Operation

CONVENTIONAL TELEPHONE OPERATION:

Calling Last Number Dialed—

1. *(a)* Press phone button; *or (b)* Press (►) until display shows "**PHON**," then press key below "**PHON**."
2. *(a)* If "**PLEASE WAIT**" is displayed, skip to step 3; *or (b)* If "**PLEASE WAIT**" is not displayed, press PTT.
3. *(a)* If dial tone is heard, skip to step 4; *or (b)* If dial tone is not heard, skip to step 6.
4. Press PTT to place call.
5. If called party answers, press PTT to talk; release PTT to listen.
6. Press **HOME** or phone button to hang up.

Calling a Number Dialed From Keypad—

1. *(a)* Press phone button; *or (b)* Press (►) until display shows "**PHON**," then press key below "**PHON**."
2. *(a)* If "**PLEASE WAIT**" is displayed, wait until dial tone is heard, then enter phone number from keypad; skip to step 4; *or (b)* If "**PLEASE WAIT**" is not displayed, enter phone number from keypad, then press PTT.
3. *(a)* If dial tone is heard, press PTT; skip to step 5; *or (b)* If dial tone is not heard, skip to step 6.
4. *(a)* If your radio has "live dial," skip to step 5; *or (b)* If your radio has "buffered dial," press PTT.
5. If called party answers, press PTT to talk; release PTT to listen.
6. Press **HOME** or phone button to hang up.

Calling a Phone List Number—

1. *(a)* Press phone button; *or (b)* Press (►) until display shows "**PHON**," then press key below "**PHON**."
2. *(a)* If "**PLEASE WAIT**" is displayed, skip to step 5; *or (b)* If "**PLEASE WAIT**" is not displayed, continue.
3. *(a)* Press (►) or (◄) until display shows desired list member, then press PTT; skip to step 4; *or (b)* Press (►) or (◄), then enter desired list location from keypad; then press PTT.
4. (a) If dial tone is heard, skip to step 7; or (b) If dial tone is not heard, skip to step 9.
5. *(a)* If dial tone is heard, skip to step 6; *or (b)* If dial tone is not heard, skip to step 9.
6. *(a)* Press (►) or (◄) until display shows desired list member; *or (b)* Press (►) or (◄), then enter desired list location from keypad.
7. Press PTT to place call.
8. If called party answers, press PTT to talk; release PTT to listen.
9. Press **HOME** or phone button to hang up.

Making a Manual Access Call From Keypad—

1. *(a)* Press phone button; *or (b)* press (►) until display shows "**PHON**," then press key below "**PHON**."
2. Enter telephone system access code.
3. *(a)* If dial tone is heard, skip to step 4; *or (b)* If dial tone is not heard, skip to step 6.
4. Enter phone number from keypad.
5. If called party answers, press PTT to talk; release PTT to listen.
6. Enter telephone system hang-up code.
7. Press **HOME** or phone button; radio returns to home display.

STAT ALERT™– CALL ALERT™ (PAGE) (DECODE): When Call Alert is received, a series of 4 beeps sound; (♪) and green LED flashes. Continues until PTT is pressed or monitor button is pressed and released.

STAT ALERT– VOICE SELECTIVE-CALL PAGE (DECODE):

1. When page is received, (♪) and green LED flash, and 2-beep alert tone sounds; voice message will follow.
2. Return radio to paging operation by pressing monitor button or, if so programmed, radio will automatically reset.

REPEAT/DIRECT: *Repeat* = talk through a repeater; transmit frequency not = receive frequency. *Direct* = talk directly to another portable radio (talkaround); transmit frequency = receive frequency.
Changing Repeat/Direct Setting From Switch—Put repeat/direct switch in desired position.

Trunked Radio Features Operation

TRUNKED TELEPHONE OPERATION:

Answering a Telephone Call—

1. When telephone call is received, telephone-type ringing sounds, display alternates between "**PHONE CALL**" and current mode, and call-received annunciator flashes.
2. To answer call, press phone button or call response button. "**PHONE CALL**" shows constantly; annunciator turns off.
3. Press PTT to talk; release PTT to listen.
4. Press **HOME** or phone button to hang up.

Calling Last Number Dialed—

1. *(a)* Press phone button; *or (b)* Press (►) until display shows "**PHON**," then press key below "**PHON**."
2. *(a)* If "**PLEASE WAIT**" is displayed, skip to step 3; *or (b)* If "**PLEASE WAIT**" is not displayed, press PTT.
3. *(a)* If dial tone is heard, skip to step 4; *or (b)* If dial tone is not heard, skip to step 6.
4. If called party answers, press PTT to talk; release PTT to listen.
5. Press **HOME** or phone button to hang up.

Calling a Number Dialed From Keypad—

1. *(a)* Press phone button; *or (b)* Press (►) until display shows "**PHON**," then press key below "**PHON**."
2. *(a)* If "**PLEASE WAIT**" is displayed, wait until dial tone is heard, then enter phone number from keypad; skip to step 4; *or (b)* If "**PLEASE WAIT**" is not displayed, enter phone number from keypad, then press PTT.
3. *(a)* If dial tone is heard, skip to step 5; *or (b)* If dial tone is not heard, skip to step 6.
4. *(a)* If your radio has "live dial," skip to step 5; *or (b)* If your radio has "buffered dial," press PTT.
5. If called party answers, press PTT to talk; release PTT to listen.
6. Press **HOME** or phone button to hang up.

Calling a Phone List Number—

1. *(a)* Press phone button; *or (b)* Press (►) until display shows "**PHON**," then press key below "**PHON**."
2. *(a)* If "**PLEASE WAIT**" is displayed, skip to step 5; *or (b)* If "**PLEASE WAIT**" is not displayed, continue.
3. *(a)* Press (►) or (◄) until display shows desired list member, then press PTT; skip to step 4; *or (b)* Press (►) or (◄), then enter desired list location from keypad, then press PTT.
4. *(a)* If dial tone is heard, skip to step 7; *or (b)* If dial tone is not heard, skip to step 8.
5. *(a)* If dial tone is heard, skip to step 6; *or (b)* If dial tone is not heard, skip to step 8.
6. *(a)* Press (►) or (◄) until display shows desired list member, then press PTT; *or (b)* Press (►) or (◄), then enter desired list location from keypad, then press PTT.
7. If called party answers, press PTT to talk; release PTT to listen.
8. Press **HOME** or phone button to hang up.

VIEWING YOUR RADIO'S ID NUMBER:

1. *(a)* Press call button; *or (b)* Press (►) until display shows "**CALL**," then press key below "**CALL**."
2. Press (◄) or, if so programmed, (*). Display shows "**MY ID:**," followed by radio's ID number.
3. Press **HOME**. Radio returns to home display.

ENHANCED PRIVATE CONVERSATION™ CALL OPERATION (VHF, UHF, and 900 MHZ ONLY):

Answering a Private Conversation Call—

1. When call is received, two repeated alert tones sound, display alternates between "**CALL RECEIVED**" and home display; green LED and call-received annunciator flash.
2. Press call button or call response button. Display shows caller's ID number; annunciator turns off.
3. *(a)*To answer call, press PTT; when done with call, skip to step 4 *or (b)* If you don't answer call, radio returns to home display in 20 seconds.
4. Press **HOME** or call response button to hang up; radio returns to home display. Pressing **HOME** also stores caller's ID as "last ID number transmitted or received."

Calling an ID Number—

1. *(a)* Press call encode button; *or (b)* Press (►) until display shows "**CALL**," then press key below "**CALL**."
2. Display shows "last ID number transmitted or received."
3. *(a)* Skip to step 4 to call last ID transmitted or received; *or (b)* Enter new 6-digit ID number from keypad; *or (c)* Press (►) or (◄) until display shows desired call list member; *or (d)* Press (►) or (◄), then enter desired call list location from keypad.
4. Press PTT to send out ID number; telephone-type ringing sounds.
5. *(a)* If called party doesn't answer within 20 seconds, display shows "**NO ANSWER**," ringing stops, and alert tone sounds. You can either send a Call Alert™ page (press PTT again; 5 beeps will sound), or skip to step 6 to hang up; *or (b)* If called party does answer, use PTT to carry on conversation.
6. Press **HOME** to hang up. Radio returns to home display.

Changing Repeat/Direct Setting from Keypad—

1 Press (►) until display shows "**DIR**".
2. Press key below "**DIR**." Display shows current talkaround state ("**REPEATER MODE**"; "**DIRECT MODE**"), THEN SHOWS "**RPTR**" AND "**DIR**."

Changing Repeat/Direct Setting from Keypad (cont.):

3. Press key below desired talkaround state. Radio saves new state and returns to home display.

PRIVATE CONVERSATION I AND II CALL OPERATION:

Answering a Private Conversation Call —

1. When call is received, two alert tones sound, display shows "**CALL RECEIVED**," and caller's voice is heard; green LED and call-received annunciator flash.
2. Press call button or call response button. Display shows caller's ID number or "**RECEIVED ID**"; annunciator turns off.
3. *(a)* To answer call, press PTT; when done with call, skip to step 4; *or (b)* If you don't answer call, radio returns to home display; *or (c)* If you want to store caller's ID number, press call response button again. Radio stores caller's ID as "last ID number transmitted or received" and returns to home display.
4. Press **HOME** to hang up; radio returns to home display.

Calling an ID Number—

1. *(a)* Press call encode button; *or (b)* Press (►) until display shows "**CALL**," then press key below "**CALL**."
2. Display shows "last ID number transmitted or received."
3. *(a)* Skip to step 4 to call last ID transmitted or received; *or (b)* Enter new 6-digit ID number from keypad, then press PTT; *or (c)* Press (◄) or (►) until display shows desired call list member, then press PTT; *or (d)* Press (◄) or (►), then enter desired call list location from keypad, then press PTT.
4. Pause for a few seconds to allow radio you are calling to sound an alert tone, then press PTT and begin talking.
5. *(a)* If you don't hear called party's voice, you can either send Call Alert™ page (press PTT; 5 beeps will sound), or skip to step 6 to hang up; *or (b)* If you do hear called party's voice, use PTT to carry on conversation.
6. Press **HOME** to hang up. Radio returns to home display.

CALL ALERT™ PAGE OPERATION:

Answering a Call Alert Page—

1. When page is received, 4-beep alert tone sounds until page is answered or radio is reset; display alternates between current mode and "**PAGE RECEIVED**"; green LED and call-received annunciator flash.
2. To answer page, press PTT; display shows current mode; LED and annunciator turn off; radio stores caller's ID as "last ID number transmitted or received."
3. Press PTT to talk; release PTT to listen. All members of mode will hear your response.

Answering a Call Alert Page With a Private Conversation Call (800 & 900 MHz Only)—

1. When page is received (see step 1 of "Answering a Call Alert Page"), *(a)* Press call response button or call button; *or (b)* Press (►) until display shows "**CALL**," then press key below "**CALL**." Display shows caller's ID number.
2. *(a)* Press PTT to transmit ID number; radio stores caller's ID as "last ID number transmitted or received."
3. *(a)* If you don't hear called party's voice, skip to step 4 to hang up; *or (b)* If you do hear called party's voice, use PTT to carry on conversation.
4. Press **HOME** or page button to hang up. Radio returns to home display.

Sending a Call Alert Page—

1. *(a)* Press page button, then skip to step 2; *or (b)* Press (►) until display shows "**PAGE**," then press key below "**PAGE**."
2. Display shows "last ID number transmitted or received."
3. (a) Skip to step 4 to page last ID transmitted or received; or (b) Enter new 6-digit number from keypad; or (c) Press (◄) or (►) until display shows desired call list member; or (d) Press (◄) or (►), then enter desired call list location from keypad.
4. Press PTT to send ID number.
5. *(a)* If you hear 1 beep, ID has been received by system, but paged radio isn't on-the-air. Go back to step 4 to try again, or press **HOME** to hang up and return to home display; *or (b)* If you hear 5 beeps, ID number has been received by system; paged radio has received page. Radio returns to home display.

AUTOMATIC MULTIPLE SITE SELECTION (AMSS):

Viewing Current Site & Forcing Site Change—

1. Momentarily press search button.
2. *(a)* if radio is locked onto site, current site is displayed; *or (b)* If radio is scanning for new site, display shows "**SCANNING**"; when new site is locked onto, new site's number is displayed.
3. Press and hold search button to manually force site change. Tone sounds and display shows "**SCANNING**" while radio scans for new site; then, radio returns to home display.

Locking/Unlocking Site—

1. Press (►) until display shows "**SITE**."
2. Press key below "**SITE**." Display shows current lock state ("**SITE LOCKED**"; "**SITE UNLOCKED**"), then shows "**LOCK**" and "**UNLK**."
3. Press key below desired lock state. Radio saves new lock state and returns to home display.